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ABSTRACT

The Anik-B project is part of the two-year communications experiments for which the Anik-B satellite is being used. The project was designed to explore the possibilities of using Interactive Instructional Television (IITV) to provide distance postsecondary education for people living in widely scattered and sometimes inaccessible areas of British Columbia. The project proved to be both educationally feasible and acceptable to the people. This Evaluation Perpectives report, the fourth of six reports stemming from the project, deals with the historical review of the IITV project, concentrating on an orderly examination of the findings contained in the various submissions collected by the project administrators. The report undertakes to (1) review the objectives, history, and scope of British Columbia Institute of Technology's IITV evaluation; (2) classify, summarize, and assess the evaluative statements that have been collected; (3) specify IITV problems which, on the basis of the evaluation, appear to require further study; and (4) identify evaluation problems connected with studies of this nature. In general, the data suggest that the experiment encountered enthusiasm for IITV in general, but not for the time, staffing, budget, and programing guidelines imposed on the pilot project. (KC)

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# ANIK-B INTERACTIVE INSTRUCTIONAL TELEVISION PROJECT

OCTOBER 1, 1979 - MAY 31, 1980

REPORT NUMBER FOUR

# EVALUATION PERSPECTIVES:

# A METHODOLOGICAL AND HISTORICAL REVIEW

# OF THE IITV EVALUATION

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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Date: October 1980

CE 028 550

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## PROJECT REPORTS

The Anik-B IITV project is reported in a series of six reports numbered and titled as follows:

| | | COST |
|---|---|---|
| 1. | Project Overview | $ 3.00 |
| 2. | The Technical System and Its Operation | $ 4.00 |
| 3. | Programme Description | $ 6.00 |
| 4. | Evaluation Perspectives | $10.00 |
| 5. | Financial Analysis | $ 3.00 |
| 6. | Administrative Structures and Procedures | $ 3.00 |

As the titles suggest, each report covers a different aspect of the project and each is separately bound. They are available from:

British Columbia Institute of Technology
Distance Education Department
3700 Willingdon Avenue
Burnaby, B.C., Canada
V5G 3H2

## SUMMARY

Project administrators at the British Columbia Institute of Technology have collected over a dozen submissions evaluating the experiment. This report provides a historical context for these submissions, and reviews their key findings. The report was written in the summer and autumn of 1980, at the request of the project administrators.

The evaluation concentrates on assessing the success with which the project objectives were attained and on identifying operational problems encountered during the project. Academic and management research comparing the educational and cost effectiveness of interactive instructional television with other modes of instruction has not been attempted. Systematic inquiries into the public demand for specific interactive instructional television (IITV) programmes and the impact of IITV on faculty workloads have also proven to be beyond the scope of the evaluation.

Evidence pertinent to the feasibility of IITV as a method of delivering instruction is favourable, but inconclusive. Student performance appraisals were not made for the majority of televised courses, but pre-test and post-test results confirm learning gains for some students. In addition, 430 course registrants successfully completed examinations or final assignments. These indications are consistent with the available information concerning student judgements of IITV teaching effectiveness.

The pilot project has brought IITV to the attention of several thousand people. Subject to severe limitations in the data, the evidence suggests that the experiment encountered enthusiasm for IITV in general, but not for the time, staffing, budget, and programming guidelines imposed on the pilot project.



OCI 130

The pilot project has demonstrated that continued adherence to these guidelines may inhibit the further expansion of IITV programming. Regular credit courses are generally not attractive when offered in isolation from complete programmes. On the other hand, strong industrial and public demand has been demonstrated for professional continuing education courses. There is a clear need for an instructor selection and training programme to confirm or upgrade the skills of persons initiating IITV presentations. Instructional support facilities superior to those available in the pilot project will be required if the IITV facility is to be used to full advantage. The necessary improvements include technical upgrading of the equipment, classroom renovations, better library services, permanent technical assistance, regular co-ordination staff, and classroom supervision. The need for a permanent central agency to plan, organize, and evaluate the operation has been identified. Additional lead-time to plan and organize programmes, a more structured approach to the establishment of programming priorities, and more effective communication channels are further administrative requirements of an expanded facility. Finally, higher levels of financial support to receiving centres and throughout the system will be necessary to maintain permanent programming.

Consideration to future IITV evaluations is given in the concluding section of the report. Experience gained in the pilot project supports the view that resources in excess of those available to the Anik-B project evaluation are required to resolve complex academic and management research questions. Resources are also necessary to support ongoing programme appraisals for management control purposes. Responsibility must also be assigned for institutional IITV cost accounting, for instructor and student evaluations, and for ensuring that IITV offerings are consistent with college and institute objectives.

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## INTRODUCTION

The Interactive Instructional Television (IITV) project used the Canadian communications satellite, Anik-B, to provide a two-way educational communications network to ten centres in British Columbia and to one in Whitehorse in Yukon. Between October 1 1979 and May 31 1980 the Canadian Department of Communications provided satellite time and equipment to permit the British Columbia Ministry of Education, Science and Technology[1] and members of the post-secondary education community in the province to experiment with the delivery of education via interactive television. Alberta joined the second half of the project in March 1980. The experiment was designed to explore the possibilities of distance education for people living in widely scattered and sometimes inaccessible areas of British Columbia and to determine whether interactive instructional television would be both feasible and acceptable to the people it was designed to serve. If it were, then it would be an excellent means of making many post-secondary educational opportunities as available to rural communities as they are to communities in the urban areas.

The project was constructed on a consortium model with all of the receiving institutions as well as the sending institutions participating in the selection of courses and in the project decision-making. Courses were selected to complement those offered through local colleges or to provide training for specialized groups such as employees of the Ministry of Highways, lawyers, doctors and building inspectors.

Delivery of education by this method was found to be effective and well received by most persons participating at the receiving sites.

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[1] This Ministry will subsequently be referred to as the Ministry of Education.

At the British Columbia Institute of Technology a specially designed classroom equipped with colour television cameras transmitted information, via the satellite to eleven distant classrooms. A maximum of twenty-four students in the originating classroom could watch the instructor in person and on television sets. They were able to talk to the other students in the remote locations via telephones located on the students' desks. The remote students could see the instructor on their television sets but the instructor could not see them. The classrooms at each remote site, and an additional overflow classroom at BCIT also contained television sets and telephones for up to twenty students, so the remote students could interact and ask questions of the instructor at BCIT. The system was designed so that everyone, no matter where they were located, could hear and contribute to the interaction. While most of the programming was live, it was also possible to play back complete videotaped programmes and add pre-taped segments to live programmes.

Six of the receiving sites could not only receive television from BCIT but could also transmit telephony via the satellite, back to BCIT. These were located at Cranbrook, Dawson Creek, Port Alberni, Prince George, and Terrace in British Columbia, and Whitehorse in Yukon. Five additional receiving sites could interact with BCIT via regular, long-distance telephone lines. These five sites received their satellite signals via receive-only ground terminals: low cost earth terminals (LCETs). These were located at Fort Nelson, Fort St. John, Gold River, Mackenzie, and Prince Rupert in British Columbia.

These two types of ground terminals as well as the television transmitting ground terminal at BCIT were owned, installed and maintained by the federal Department of Communications, who placed them on loan to the project. The provincial Ministry of Education and the participating institutions shared in equipping the sites, and the project was co-ordinated and managed by extension staff at BCIT.

Four courses which started in September 1979 were videotaped, duplicated and sent to each site enrolling students. When satellite transmission became available on October 1, 1979, these courses and other programmes were broadcast live with interaction. Each programme was taped so that a copy could be sent to receiving sites if technical failure caused students to miss a class. These copies were returned to BCIT and both the copies and master tapes were erased unless the originating instructor or agency wished the master tape to be retained. In addition to this a selection of the master tapes was kept for the archives.

Weekly teleconferences were held by BCIT and the receiving sites during which operational, administrative and some technical problems were discussed and changes suggested.

The project showed that IITV could become an excellent means of distance education for widely dispersed students who would otherwise be denied the educational opportunities available to people in the highly populated areas where educational opportunities abound.

B.L. Yeoell
W.D. Robertson

This report deals with the historical review of the IITV project. It concentrates on presenting an orderly examination of the findings contained in the various submissions collected by the project administrators. Specifically, the report undertakes to:

- review the objectives, history, and scope of BCIT's IITV evaluation;
- classify, summarize, and assess the evaluative statements that have been collected;
- specify IITV problems which, on the basis of the evaluation, appear to require further study;
- identify evaluation problems connected with studies of this nature.

Apart from the exceptions footnoted as they occur, the report is based entirely on evaluation data and administrative documents gathered by other persons. The author has not attempted to gather original information or to re-interpret the primary data assembled by previous contributors. The reports received and formulated by BCIT are appended to this document with no changes other than the correction of typographical errors in those which it was necessary to retype to produce a camera-ready copy for printing.

## Background

During the spring and early summer of 1980, the Interactive Instructional Television (IITV) project administrators at British Columbia Institute of Technology (BCIT) collected a series of memoranda, letters, and reports evaluating the experiment. These submissions were contributed by other post-secondary institutions; participating government and professional organizations; BCIT's evaluation team; and the chairman of the BCIT's IITV Evaluation Committee. In July, 1980, a curriculum development specialist from the Distance Education Department at BCIT was assigned to prepare a report which would provide a structure for these submissions.

History of the IITV Evaluation at BCIT

Efforts to evaluate the Anik-B experiment have a complex history, dating from the time when the project was officially accepted by BCIT. In tracing that history, this report attempts to do two things:

1. to specify the responsibilities and authorities for various stages of the evaluation; and

2. to ascertain the agreed goals and objectives of the evaluation.

In short, the report presents an account of how the evaluation came to be what it is today.

The IITV project was administered by BCIT on behalf of the Ministry of Education, Science, and Technology. Correspondence with the Ministry during the late winter of 1979 confirms that management of the project was formally entrusted to David M. Brousson, Dean of Continuing Education and Industry Services at BCIT. Project co-ordination was delegated by Mr. Brousson to William D. Robertson, Head of Distance Education at the Institute. The project administrators were supported by an advisory committee, officially known as the IITV Task Force, which was formed to facilitate the participation of other BCIT divisions and departments. Beyond the general requirement that BCIT provide the Ministry with progress reports, no detailed instructions were received in advance concerning evaluation of the project. In effect, responsibility and authority for BCIT's evaluation of the IITV experiment rest with the project administrators, Brousson and Robertson[1].

[1]It is worth noting here that the project administrators have at no point claimed monopoly in the field of Anik-B evaluations. Separate appraisals no doubt will be made by the federal Department of Communications, the provincial Ministry of Education, Science and Technology, participating colleges, and other organizations involved in the experiment. The results of these appraisals may nor may not be made public.

Design, implementation, and analysis of the inquiry were assigned to Brian Yeoell and Eleanor Riches, both of whom are employed to conduct planning and development research in the Division of Continuing Education and Industry Services. As senior member of the team, Yeoell contributes a lengthy career in operations, administrative, and financial management, while Riches provides research expertise in health and education. Both were able to draw on the experience gained through their involvement in BCIT's assessment of the Hermes project in 1977/78.[1] It was felt that Yeoell and Riches were particularly well placed to provide an independent and unbiased appraisal of the IITV experiment, since neither held a line position directly related to the project.

The objectives of the appraisal were formulated prior to the appointment of the evaluation team. Yeoell and Riches perceived their assignment as having two functions. Firstly, they adopted the position that the evaluation should provide information pertinent to decisions concerning the future of IITV. Secondly, they accepted responsibility for informing the project administrators of problems which could be addressed and resolved during the life of the project. Concern for an overall assessment of the project appears to have been given prominence in public presentations of the evaluation plan. Progress appraisals occupied the forefront of attention during the life of the project, particularly in in-house documents and discussions.

[1]The Hermes project was an earlier experiment using satellite technology to broadcast educational programmes in B.C.

All parties to the project were made aware in advance of the information that would be provided by the evaluation and of the methods to be employed. In early April of 1979, letters were written to all participating colleges requesting the name of a contact person to be responsible for suggesting evaluation items of local interest, for discussing the feasibility of the proposed appraisal, for administering evaluation instruments, and for conducting local evaluations. Several colleges subsequently provided written submissions concerning the evaluation. In May, the evaluation objectives were confirmed in the project plan, which was submitted to and approved by the provincial Ministry of Education and the federal Department of Communications. Proposals for the evaluation process were discussed at length with the IITV Task Force, and in June an itemized timetable for the evaluation was presented to the project administrators.

Throughout the first term (September - December 1979), the evaluation team collected and analyzed data obtained from questionnaires, interviews, and personal visits to IITV classrooms. A number of technical and operational difficulties were periodically identified and reported; some were resolved, with the result that substantial improvements were apparent during the second term.

The interest aroused by the IITV pilot during Term 1 presented the project manager with an opportunity to expand the range of expertise being brought to bear on the evaluation. In March of 1980, an *ad hoc* evaluation committee was convened under the chairmanship of Brian Gillespie (Dean of BCIT's Core Division). Serving on the committee were Lundy Sanderson (Department Head, Broadcast Communications) Robert Mason (Dean of Engineering), and Dr. Ron Faris (Executive Director, Continuing Education, Ministry of Education). The committee was authorized by the project manager to re-structure and strengthen the

evaluation. Judging by its actions and by the tone of its communications, the committee appears to have proceeded on the assumption that it had been placed in full charge of the appraisal[1]. The project administrators and the evaluation team were available as resource persons rather than committee members.

It must be remembered at this point that the committee was entering the evaluation process almost six months after the first courses were broadcast. In view of this fact, it was perhaps natural that the committee should decide to build on the existing evaluation data rather than initiate an entirely new research design. The committee's attention consequently focussed on an internal interim report prepared by Yeoell and Riches to summarize the research at the end of Term 1.

Finding that the interim report had not been designed or written for public use, the committee perceived its first task to be that of preparing an edition suitable for general distribution. H. Arthur (Department Head, English) was commissioned by the committee to rewrite the Riches document during the Easter break. Using Riches' primary data, the report was re-organized by Arthur in a form which met with the committee's approval. Copies of this document were distributed to participating colleges.

Once having dispensed with the interim report, the committee turned its attention to the collection of data for the final evaluation. To this end, representatives from participating organizations were invited to present submissions to a meeting on May 15, 1980. The results of this meeting were summarized by the committee chairman in a report distributed to all participants.

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[1] The project remained under the overall direction of Brousson. Technically, the committee therefore acted under authority delegated to it by the project manager.

The meeting of May 15 concentrated on evaluating the project administration. It was suggested that the educational effectiveness of IITV should be appraised at a further meeting to be held in late August. However, establishment of the Knowledge Network Of The West Communications Authority persuaded the project administrators that the evaluation should be concluded prior to the date of the proposed meeting. A request for written submissions, with particular emphasis on the assessment of educational effectiveness, was issued to all participating organizations on July 7, 1980. At the time of writing, one submission (from the University of Victoria) had been received in response to this request.

Meanwhile, the initial evaluation team (Yeoell and Riches) continued to collect and to analyze data according to their original plan. The report reviewing their findings was concluded in June, within a few weeks of the project being brought to a close.

By the middle of July, BCIT possessed an array of reports prepared independently and at different times by a variety of organizations. These reports present a degree of commonality in the assessment of some major issues, although disagreement remains concerning others.

## Purpose of the Anik-B IITv Pilot Project

According to the project plan, the Anik B experiment was undertaken in order to:

> "test and assess the potential for future use in British Columbia of interactive Instructional Television, using methods adapted from TAGER, Stanford, and other similar models, at an undergraduate level using regular courses, classes and instructors over a full instructional term, and on a regularly scheduled basis, using a satellite to overcome the vast distances in western and northern Canada ..."

In brief, the orginators of the project wanted to find out whether IITV could offer distance learners the opportunity to participate in post-secondary programmes which are otherwise accessible only to residents of the larger metropolitan areas.

As is noted by Riches, the IITV model which appealed most to the project planners depended entirely on the televising of regular classroom events. Because the programming in this model is live and interactive, it was hoped that learners would be able to participate at a distance in conventional post-secondary classes. This simple expedient would eliminate the costly and time-consuming development of print, audio, and television materials such as those employed by the British Open University. IITV also was expected to overcome the necessity for local tutors, since learners would have access to the regular instructor in each course. At the same time, the student/teacher interaction available through IITV seemed to provide a critical advantage over distance education models based on correspondence instruction. Satellite technology thus appeared to present an excellent method of expanding and improving British Columbia's distance education capability with no additional cost other than the expense of acquiring, installing, and maintaining the equipment.

To test this proposition, it was essential that the pilot project explore the feasibility of grafting an IITV facility onto the existing post-secondary system. In other words, the use of existing post-secondary programmes, unmodified and televised under severe time and cost constraints, was a vital, pre-determined feature of the experiment. Special equipment and administrative costs were allowable, but extra instructional and curriculum development expenses, whether on an unpaid or overtime basis, were to be avoided. According to the project plan, if Anik-B has shown that satellite technology can deliver effective instruction as specified by these conditions, the model might be considered a success. If not, the model must be rejected or modified.

Objectives and Scope of the Evaluation

As initially presented in the project plan, BCIT's evaluation of the IITV project was designed to provide data on:

- the acceptability of IITV by college students;
- the impact of IITV on instructor workloads;
- the skills required by IITV instructors;
- the cost of operating an IITV network in B.C.;
- the educational effectiveness of IITV as a post-secondary level;
- the cost benefits of IITV as opposed to conventional methods of providing instruction in courses not normally available in the college regions;
- the student population;
- the reasons for student withdrawals and their suggestions for lowering the attrition rate;
- the perceived quality and adequacy of equipment;
- courses that would be of interest to future IITV students.

An evaluation of administrative effectiveness evolved during later phases of the project.

Largely due to time, budget, and organizational constraints, several of the issues addressed in the original project plan have been omitted in subsequent reports and in the final document. Reliable and conclusive data comparing the educational effectiveness of IITV with correspondence and classroom instruction were found to be beyond the resources of the evaluation. Similarly, no systematic analysis has been made of the skills required of IITV instructors or of the faculty workload implications of IITV. Costs and cost effectiveness are treated in a separate report prepared by the project co-ordinator, and are not formally addressed in the evaluation.

## MAJOR EVALUATION FINDINGS

### Educational Effectiveness

No matter how successful it might be in other respects, no mode of delivering instruction can be considered acceptable unless it is known to facilitate learning. It is not surprising therefore, that educational effectiveness was one of the key issues addressed in the IITV evaluation originally designed by Yeoell and Riches. Questions have also been raised repeatedly by college representatives, instructors, and administrators from other participating organizations.

In response to these questions, data dealing with the educational effectiveness of Anik-B is extremely scarce. It would not be realistic to expect that the resources committed to the evaluation should yield definitive scientific evidence comparing the effectiveness of IITV with that of other instructional modes. It does seem reasonable to suggest, however, that at least the cruder indicators of educational success (such as examination results) should be subjected to serious review.

The number of students known to have successfully written examinations or to have submitted satisfactory assignments in IITV is given in Table 1[1]. Exclusive of programmes delivered by the University of Victoria, students were required to pass examinations or provide other evidence of learning achievement in only seven of the courses delivered through IITV[2]. However, judging from the number of students who reported satisfaction with IITV presentations, it seems plausible to suppose that learning did occur in the remaining courses, but we have no data to confirm this supposition. The most positive evidence that can be drawn from Table 1 is that IITV may have enabled 430 course registrants to acquire knowledge they did not possess prior to enrolment.

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[1] Source: Directed Study Centre records. This information is not provided in previous evaluation reports.

[2] Some courses were non-credit and for these it was considered unnecessary to insist on pre- or post-tests.

Attention should be called to the qualifying term, "may have" in the preceding statement. Pre-testing either was not conducted or is not yet reported for the courses itemized in Table I. Consequently, it is impossible to say at this point whether student success was the result of IITV instruction or whether it can be attributed to prior learning. It is interesting to find that pre-testing and post-testing for all courses were suggested by Riches in her initial research design. Riches notes, rather cryptically, that "... for a variety of reasons such testing was not carried out with two exceptions."[1]

The two exceptions noted by Riches are not sufficient to support general conclusions concerning the educational effectiveness of IITV. One study was based on a single session in a twelve-week course. The other provides self-evaluation data of only thirty-eight students of which twenty-seven did not return final questionnaires.

Zuckernick's study of programming prepared by the University of Victoria is more satisfactory.[2] Her report summarizes pre-test and post-test data for roughly 70 percent of a total enrolment of about 95 persons. From Zuckernick's study, learning gains can be documented for students undertaking fourth year degree programmes at three locations served by IITV.

Given the paucity of pre-test and post-test data, it may be necessary to form an assessment based largely on subjective data. Riches reports that 81.8 percent of Term 2 respondents compared IITV favourably with classroom teaching, while 90.8 percent made a positive comparison with correspondence instruction. Combining this data with the opinions

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[1] Appendix 1, page 57. Evaluation of student performance is often the prerogative of individual instructors. Since few instructors acknowledge the need for pre-testing, it is seldom conducted.

[2] Zuckernick's report was being printed at the time of writing; her summary of this report appears here as Appendix 4, page 173. The above comments are the result of a telephone call discussing the evaluation.

TABLE 1: Number of Students Successfully Completing Examinations or Final Assignments in ANIK B Courses.

TERM 1

| Course | Students[1] |
|---|---|
| Hospitality and Tourism | 60 |
| Reading and Study Skills | 40 |
| Construction Administration | 42 |
| Forest Utilization | 42 |
| Nursing | 183 |
| Total | 365 |

TERM 2

| Course | Students |
|---|---|
| Mining | 2 |
| National Building Code | 63 |
| Total | 65 |

[1]Numbers are approximate, since some courses were still in process at the time of writing.

expressed by instructors and site co-ordinators, her conclusion is that IITV is an "... effective way of learning, compared with not only correspondence course learning but with regular classroom learning."

This conclusion should be treated with a great deal of caution. To begin with, it must be remembered that the research findings reflect an expression of opinion, unsupported by objective evidence of student performance. Secondly more than 500 of the 716 persons registered in Term 2 courses failed to complete the questionnaires distributed by Riches, leaving us with no knowledge whatever of their reaction to IITV. Thirdly, it seems reasonable to ask whether all those responding to the questionnaire have sufficient knowledge of high-quality correspondence and classroom instruction to make a fair judgement; student assessments indeed appear to vary markedly, with Term 2 participants being much more enthusiastic about IITV than their predecessors in Term 1. Finally, considering the broader policy implications of the IITV project, one wonders whether it might not have been desirable to elicit a comparison with other models of distance education, such as that adopted by the British Open University.

Other than Zuckernick's study, from a methodological perspective the pilot project has yielded virtually no supportable conclusions concerning the educational effectiveness of IITV in the delivery of regular post-secondary courses. This is because most IITV courses were not regular offerings; the project has not presented the opportunity to make controlled comparisons between alternative delivery modes; the results of student performance evaluations are available for only a few IITV courses; pre-testing has been possible only on very rare occasions; and student appraisals of educational effectiveness appear subject to serious questions of validity. One can only conclude that much of the IITV evaluation data so far available neither confirms nor disproves the educational effectiveness of IITV.

It would perhaps be wise to emphasize at this point that what Riches refers to as "favourable indications" may well be considered adequate data by those who must decide on the future use of IITV. When all is said and done, we do know that at least some students can learn through IITV and that many more believe it to be a feasible alternative to correspondence and classroom instruction. Practical affairs being what they are, one must proceed on the basis of the best available information, which in this case appears to favour continued experimentation.

## Acceptability of IITV

In addition to being educationally effective, IITV must be acceptable to its potential users and to those responsible for its delivery if it is to be successful. An assessment of this issue is available from Riches' report, supplemented by Gillespie's summary of the May 15 evaluation meeting and the submissions presented by participating organizations.

Riches' research covered several key questions which may be used to gauge the level of acceptance achieved by IITV. Students at the receiving sites and at BCIT were asked, "If other courses with this type of presentation were made available to you, would you enrol again?" Instructors, technical staff, and administrators were asked, "How would you rate your personal satisfaction with the project? and how much would you like to be involved with similar projects again?" In addition, Riches conducted personal interviews with the principal course instructors, two course co-ordinators, and an instructor from another sending institution.

Riches' data suggest that the project has generated a high level of acceptance for IITV. Of the nearly 200 students who completed questionnaires in Term 2, 158 said they would enrol in

expressed by instructors and site co-ordinators, her conclusion is that IITV is an "... effective way of learning, compared with not only correspondence course learning but with regular classroom learning."

This conclusion should be treated with a great deal of caution. To begin with, it must be remembered that the research findings reflect an expression of opinion, unsupported by objective evidence of student performance. Secondly more than 500 of the 716 persons registered in Term 2 courses failed to complete the questionnaires distributed by Riches, leaving us with no knowledge whatever of their reaction to IITV. Thirdly, it seems reasonable to ask whether all those responding to the questionnaire have sufficient knowledge of high-quality correspondence and classroom instruction to make a fair judgement; student assessments indeed appear to vary markedly, with Term 2 participants being much more enthusiastic about IITV than their predecessors in Term 1. Finally, considering the broader policy implications of the IITV project, one wonders whether it might not have been desirable to elicit a comparison with other models of distance education, such as that adopted by the British Open University.

Other than Zuckernick's study, from a methodological perspective the pilot project has yielded virtually no supportable conclusions concerning the educational effectiveness of IITV in the delivery of regular post-secondary courses. This is because most IITV courses were not regular offerings; the project has not presented the opportunity to make controlled comparisons between alternative delivery modes; the results of student performance evaluations are available for only a few IITV courses; pre-testing has been possible only on very rare occasions; and student appraisals of educational effectiveness appear subject to serious questions of validity. One can only conclude that much of the IITV evaluation data so far available neither confirms nor disproves the educational effectiveness of IITV.

It would perhaps be wise to emphasize at this point that what Riches refers to as "favourable indications" may well be considered adequate data by those who must decide on the future use of IITV. When all is said and done, we do know that at least some students can learn through IITV and that many more believe it to be a feasible alternative to correspondence and classroom instruction. Practical affairs being what they are, one must proceed on the basis of the best available information, which in this case appears to favour continued experimentation.

## Acceptability of IITV

In addition to being educationally effective, IITV must be acceptable to its potential users and to those responsible for its delivery if it is to be successful. An assessment of this issue is available from Riches' report, supplemented by Gillespie's summary of the May 15 evaluation meeting and the submissions presented by participating organizations.

Riches' research covered several key questions which may be used to gauge the level of acceptance achieved by IITV. Students at the receiving sites and at BCIT were asked, "If other courses with this type of presentation were made available to you, would you enrol again?" Instructors, technical staff, and administrators were asked, "How would you rate your personal satisfaction with the project? and how much would you like to be involved with similar projects again?" In addition, Riches conducted personal interviews with the principal course instructors, two course co-ordinators, and an instructor from another sending institution.

Riches' data suggest that the project has generated a high level of acceptance for IITV. Of the nearly 200 students who completed questionnaires in Term 2, 158 said they would enrol in

other courses.[1] Similarly, among the 19 instructors, administrators and technical staff responding to the questionnaire, nine were either very satisfied or moderately satisfied, and 14 would like to be involved again in similar projects. All Term 2 instructors interviewed by Riches said they would like to participate in further IITV projects.

As with the issue of educational effectiveness, it is essential to interpret these findings with extreme caution. The general level of public interest in IITV is still unspecified, since we know nothing whatever about the thousands of potential students who either failed to hear of Anik B or who chose not to enrol. Nor do we know anything about the reactions of the many hundreds who dropped in for short seminars or special interest courses without formally registering. Of the 716 learners who did decide to take part, more than 500 did not return completed questionnaires, leaving considerable room for speculation as to their disposition towards IITV. Nor is it entirely clear that questionnaire respondents are unreservedly enthusiastic: 25 percent report that they would very much like to have face-to-face contact with the instructor; 33 percent want tutoring or counselling most or some of the time prior to and during the course; (while 57 percent said that this kind of assistance was not very accessible or not at all accessible); 57 percent would have liked more assistance from the college through which they registered; and 40 percent found the library service poor or very poor. Whatever level of acceptance has been gained among potential and actual users of IITV in British Columbia, a substantial number of those responding to the questionnaire would like to see major improvements in the model.

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[1] Riches and the project administrators take note of the fact that many participants accepted IITV because there is presently no alternative.

On-campus, full-time BCIT students drawn into the IITV experiment found themselves obliged to accept a unique classroom environment, equipped with television monitors and telephones for communicating with their instructors. Their reactions were mixed. Student dissatisfaction with some courses in Term 1 reached the point at which formal complaints were made to the Dean of Engineering. Other courses appear to have met with a more favourable response, suggesting that factors other than the introduction of IITV facilities may have influenced the level of acceptance gained by IITV.[1] Overall, at the end of Term 1, 46 percent of full-time, on-campus BCIT students responding to the questionnaire indicated that they would not enrol in future IITV programmes; 42 percent very much wanted face-to-face contact with their instructor; and 43 percent thought IITV to be moderately or very effective compared with regular classroom instruction. Following the improvements made in Term 2, Riches could report that the proportion of BCIT Continuing Education students who viewed IITV positively in comparison with classroom instruction was equal to the proportion of receiving centre respondents who made similar judgements. Comments appearing on the questionnaires indicate, however, that some originating centre students judged the IITV classroom to be hot, unattractive, uncomfortable, stuffy, and overcrowded; that they found the television monitors blocked their view of the instructor; and that they considered having to use the telephone a nuisance.[2] Improvements to the facilities appear to be essential if students enrolled in regular classes are to accept the intrusion of IITV facilities.

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[1]The instructor's ability to adapt to IITV, the disposition of individual class members, and the vagaries of classroom dynamics are among the plausible explanations for this phenomenon.

[2]Appendix 1, pages 60 and 61.

The available information regarding instructor reactions to IITV is extremely difficult to interpret. Over sixty BCIT instructors volunteered to teach IITV courses for Term 1 -- a number which exceeded the programming capability of the experiment. All instructors interviewed at the end of Term 2 would participate in further IITV projects. However, this is not surprising, since it can be assumed from their volunteer status that they were favorably disposed towards IITV from the start. It is significant also that most Term 2 instructors were drawn from industry rather than from BCIT. Riches reports a variety of changes which would make further involvement more appealing.[1]

A similar sense of qualified acceptance is apparent in the responses made by administrators from participating post-secondary institutions and other organizations. Gillespie's concluding comments on the May 15 evaluation meeting suggest that IITV has been generally well-received.

> "It was noted that the project has been a success ... The many comments made in the meeting were put forward in a positive and constructive vein with the intention that the ongoing growth of IITV will be realized by learning from current experience".[2]

The overall air of enthusiasm conveyed in this conclusion should not be allowed to conceal the significance of the changes suggested by those attending the meeting. While some suggestions concern relatively minor technical and operational details, others could not be implemented in a straightforward expansion of the pilot project. The meeting suggested, for example, that IITV should be administered through a central organization, to facilitate short and long-term planning and to provide management continunity. Riches notes, from

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[1] Appendix 1, pages 64 and 65.

[2] Appendix 2, page 135.

her observations at the same meeting, that the TAGER and Stanford IITV models are generally regarded as inappropriate. She emphasizes also the point that several colleges would not be involved in further projects without improved funding and clarification of the public demand for IITV programming. Finally, attention must be given to the frequency with which some college administrators urge a return to the goal of offering credit courses.

Programme Selection

According to the IITV model adopted by the project planners, it was originally intended that Anik-B should be used to transmit regular post-secondary classes currently available only at the larger metropolitan institutions. IITV was thus perceived as a means of strengthening existing community college programmes through the addition of carefully selected courses.

Experience gained from the pilot project indicates that it is not at present feasible to programme IITV offerings in this fashion. Individual college programmes do not contain gaps which can be neatly filled by courses imported from the major urban institutions. Attempts to support regular college post-secondary offerings through IITV therefore must provide total programmes presently unavailable in the college regions. Such attempts would encounter serious organizational difficulties, since regular programming at the provincial institutions is not presently co-ordinated with college timetables, is not scheduled to match the needs of part-time distance learners, and may be treated by faculty unions as work load issues. To attract and serve post-secondary students in the college regions, IITV must offer comprehensive programmes with flexible schedules, rather than isolated courses available only on a fixed timetable.

The alternative adopted during the pilot project was to offer a variety of non-regular courses directed towards the educational needs of specific target groups. This option succeeded because of strong public and industrial demand for special-purpose upgrading courses. Promotional assistance, curriculum materials, instructors, and administrative support were made available (often at no charge to the project) from employers and professional associations. In the absence of such support, the number of courses presented in the pilot project would have been drastically reduced.

It is evident that the selection of programmes to be offered through IITV involves major policy decisions, with serious educational and administrative implications. There is no doubt that the range of professional upgrading courses available through IITV could be expanded almost indefinitely. Better procedures to confirm student performance may make it possible to offer formal accreditation for many such courses. Some college representatives have repeatedly emphasized the need for greater access to credit programmes. It remains to be seen whether widely-acceptable balance can be achieved between professional upgrading and regular post-secondary programmes. At any rate, it is clear that neither option is consistent with the programme selection strategy initially proposed for the pilot project.

## Use of the Interactive Feature

One of the key advantages claimed for IITV is its potential for student/instructor interaction. The pilot project provided an opportunity to identify problems which might prevent this potential from being realized.

Questionnaire results and observations at IITV classrooms indicate that the interactive feature was not used to full advantage in many courses. During Term 1, 52 percent of receiving site respondents reported that

they made no use at all of the interactive audio or telephone facilities and only 5 percent reported using the equipment more than ten times. For Term 2, 52.8 percent of all respondents reported no use, 3.6 percent reported use on more than 10 occasions, and 62.1 percent said they would have asked more questions in a regular class.[1] These results are consistent with the observations made by receiving site co-ordinators and by Riches in her visits to IITV classrooms.

Again, extreme care must be taken in interpreting the figures presented in Riches' report. Quite apart from the limitations of her data, it might well be that the level of student/teacher interaction indicated by these results equals or exceeds that found in post-secondary lectures, tutorials, and seminars. In the absence of more detailed research, therefore, it is pointless to speculate on the reasons for the interaction levels achieved in IITV courses. There appears to be general agreement that some courses achieved far higher student participation rates than others, but controlled course-by-course comparisons have not been made.[2]

There are indications that some learners might be willing to forego IITV interaction with the instructor. Shift workers and others who experience difficulty in attending live viewings at a community centre frequently express the wish for videotaped editions of IITV courses. Persons taking advantage of this option, if it were available, would be able to view and to hear, but not to participate in the interaction initiated by other students.

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[1]The results for originating centre respondents are not distinguished from those for receiving centre respondents in Riches' final report.

[2]Even if the data from such comparisons were available, this would be a delicate subject to deal with in public, since course-by-course comparisons have implications for instructor evaluation. Comments from college representatives suggest that the teaching styles of some instructors are adapted more readily than others to IITV presentations. Riches' classroom observations lead her to comment that "... it would be helpful to have more encouragement from the instructor and call people by name and/or site." (Appendix 1, page 63).

Programme Production Methods

A good deal of controversy persists concerning the production of IITV programmes. On the one hand, enthusiastic observers of the TAGER and Stanford models often insist on distinguishing between IITV and educational television, maintaining that the former requires no adjustments other than the installation of electronic facilities. Other observers favour using the techniques employed in public educational television and other professional media productions. Televising the typical post-secondary class, they argue, is a gross under-utilization of an expensive medium, since it will fail to hold the attention of most viewers.

Unfortunately, the evidence assembled from the IITV project offers little assistance in resolving this controversy. Twenty-five percent of Term 2 respondents reported that the programmes held their interest all the time; 54 percent said most of the time; 16 percent said some of the time; 4 percent said not very often; and 1 percent not at all. However, the interest levels maintained for over 500 Term 2 students remain forever in doubt, since they failed to return completed questionnaires.

It is possible that a solution to the controversy surrounding IITV programme production will emerge from our growing knowledge of educational technology. We have known for some years now that effective instruction depends on the skill with which a variety of instructional design and presentation techniques are applied. IITV is not inherently inconsistent with such techniques, and instructors who regularly apply them should have no difficulty in adapting to IITV presentations. On the other hand, those who regard teaching as an information giving/examination marking kind of exercise will provoke critical comments even if they are supported by a professional television production facility. Given adequate learning aids (such as print, film, graphics, audio tapes,

and so on), it may not be necessary to engage in television production methods any more elaborate than the techniques normally practiced by an accomplished instructor.

The pilot project appears to have provided experience but not data relevant to this issue. In the opinion of the project co-ordinator, the more lively IITV productions, and those demonstrating the highest degree of student and instructor satisfaction, were those which followed the guidelines suggested by proven instructional techniques. Although evident in several other programmes, an appreciation for these guidelines was particularly apparent in the University of Victoria offerings. The more successful courses employed print materials to deliver the necessary information base, reserving IITV time for discussion, debate, and knowledge-application demonstrations. Unfortunately, due to the absence of course-by-course comparisons, these judgements are no more than an expression of belief which may or may not meet with widespread agreement among students, instructors, and site co-ordinators.

Faculty

Soon after the introduction of the Anik-B pilot project, IITV became a technological change issue in provincial post-secondary labour/management relations. Both labour and management could by now add volumes of argument at length to the evaluation. With this background in mind, it would be inappropriate to comment here on the project evaluation data relevant to the faculty workload and training implications of IITV.

One of the key benefits claimed for an IITV facility in B.C. is that it will make highly qualified faculty available to college regions which otherwise could not afford such expertise. With this expectation, college representatives and site co-ordinators are adamant that they should not be asked to tolerate mediocre or sub-standard instruction. Programmes which drag on without a change in pace, which fail to elicit learner participation, or which fall prey to the "talking head" syndrome simply do not meet the standards of professional college educators.[1]

Instructor evaluation is typically a matter to be dealt with privately between a faculty member and his or her department head, with input occasionally accepted from student organizations. For this reason, project evaluators have conscientiously avoided making named comparisons between individual instructors. It is clear from Riches' reports, however, that some instructors were considered excellent by their students while others were not. This observation is paralelled by Karlsen who remarks that "Some of the teaching during the project has been very good, but some has been embarrassingly bad."[2] Anecdotal comments cannot, of course, be substituted for information collected with more rigorous techniques. Nevertheless, they do indicate considerable variation in the quality of instruction available to IITV students.

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[1]To use the words of Gary Karlsen, Distance Education Co-ordinator at Northwest Community College, "Some instructors may also be taking the technology of television teaching for granted. Simply sitting in front of a camera and talking - to the studio audience at that - is a poor excuse for both television and education. The stark reality of a talking head is often no more involving for our students at the receiving end than if they were looking through a window - they get the feeling that what's going on is not really for them." (Appendix 3, page 156.)

[2]Appendix 3, page 153.

These comments suggest that the successful expansion of IITV programming will depend in part on the implementation of an effective instructor training programme. This report is not the place to specify the objectives, content, or methods of such a programme. Nevertheless, it is fair to point out that some faculty adapt very readily to IITV, reporting that they require little more than a handout or personal introduction to the limitations and operation of the equipment. Other instructors express the need for instructional techniques training.[1] Recommendations to strengthen instructor selection and training also recur frequently in college evaluations of the pilot project.

The project has yielded no empirical data concerning the impact of IITV on instructor workloads. According to Riches' report, BCIT faculty involved in the project indicate a need for more preparation time, but the extent and justification for this remain unexplored and undocumented. In this connection, it is evident that the design and development of new professional upgrading courses will generally require more preparation time than that devoted to the maintenance of regular post-secondary courses. It is obvious also that the enrolment of IITV students will increase the student contact hours, and therefore, the overall workload of faculty in originating centre institutions, particularly if they are the sole source of instruction. The additional number of hours involved, the terms of compensation, and the workload adjustments required by IITV faculty are among the details remaining to be worked out in faculty/management negotiation.

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[1]Appendix 1, page 64.

## Instructional Support

According to the project plan, IITV programmes were expected to function with a minimum of additional technical, clerical, professional, and administrative support. Installation and maintenance of the equipment was to be performed by the federal Department of Communications. The originating centre at BCIT would provide control room operators (initially distance education staff, and later Broadcast Technology students), a student records facility, and part-time co-ordination from its Distance Education Department. College functions were initially intended to be handled as a part-time responsibility of regular administrative staff. Monitors and examination invigilators, where required, were suggested in the BCIT/college contracts, but tutoring was not encouraged.

Judging from the responses of instructors, site co-ordinators and administrators, the marginal cost objective was responsible for a variety of technical deficiencies in Anik-B programming. To quote Karlsen once more:

> "The 'KISS' financial formula which denied the use of everything from proper lighting to skilled technicians has resulted in some of the worst educational television imaginable. It can be pretty distracting trying to learn from a ghosting television instructor with a receding hairline and a halo, sitting in the bottom left corner of the TV screen".[1]

Other criticisms occur frequently in the appraisals submitted by participating organizations. Equipment breakdowns, a shortage of spare parts, the lack of operations manuals, the slowness with which the Department of Communications (DOC) repairs were made, and telephone failures are among the problems repeatedly emphasized.[2] Regarding the

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[1] Appendix 3, page 156.

[2] Riches reports that some telephones were out for weeks (Appendix 1, page 59.

equipment itself, 16.7 percent of Term 2 respondents judged it to be more than adequate, as opposed to 11.1 percent who thought it was inadequate.

Riches observes that breakdowns at some sites were more frequent towards the end of the project and that "these problems did not necessarily improve as the project progressed."[1]

Technical deficiencies in the equipment do not appear to have been evident to most students. At the end of Term 1, only 9 percent of questionnaire respondents thought that the overall TV presentation was either poor or very poor; 13.3 percent judged the equipment to be not very adequate or inadequate; 2.6 percent found the clarity of the picture to be very poor or poor; and 5.5 percent thought the quality of sound was poor or very poor. The equipment was judged even more favourably by Term 2 respondents, as were the clarity of the picture and the quality of sound.[2] These results suggest that either:

1. students were less critical of IITV facilities than other project participants; or
2. project instructors and administrators were more aware than students of the technical difficulties involved in keeping the IITV facility in operation.

The pilot project has shown that the operation of an IITV facility requires greater staff resources than was anticipated by the project planners. Staffing deficiences appeared early in Term 1, and were only partially resolved by the completion of the project. At the end of Term 2, 28.9 percent of the respondents to Questionnaire 4 still regarded the supply of staff to be inadequate.

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[1]Appendix 1, page 70.

[2]The project co-ordinator suggests that IITV picture quality was superior to that of commercial television available at some centres. Improvements were particularly evident following the hiring of two regular technical producers and a technical co-ordinator at the originating centre.

Technical operation of the equipment was particularly problematic for instructors and site co-ordinators during the early weeks of Term 1. Communication with the equipment supplier, frequent adjustments to the system's routine operation, trouble shooting, and assistance to instructors occupy a great deal of time and require technical expertise which the typical post-secondary administrator does not possess. For the amount of programming delivered through the pilot project, it was necessary to hire two BCIT Broadcast students as technical producers. In addition, a BCIT Broadcast faculty member was hired as a technical co-ordinator.

Communication among the originating site, the receiving sites, and other participating organizations remained a persistent problem throughout the project. Difficulties in getting reliable and timely information from BCIT are cited frequently in almost all evaluation reports, and were only partially solved by regular one hour Friday afternoon teleconferences, in which administrative details were discussed using the interactive satellite facilities.

Reports from the colleges indicate that it is not feasible to add IITV duties to the workloads of existing administrators. Site co-ordination requires that continued attention and follow-up be given to a wide range of activities, including advertising, classroom scheduling, equipment maintenance control, assembly of student records materials, supervision of classroom leaders, and evaluation. These duties are best delegated to a part-time or full-time IITV co-ordinator whose attention cannot be diverted to other college programmes.

Classroom supervision has emerged as a critical element in the system. Riches reports that most Term 2 instructors "... considered a contact person at each site an absolute necessity - to be available at the start of each class, to 'phone in attendance, and to look after technical

aspects."[1] Some IITV students found classrooms locked when they arrived, and others were not advised when a class was cancelled. Presumably, a classroom supervisor would be responsible for eliminating such occurrences, as well as for distributing student handouts and proctoring examinations. Almost all instructors agreed that classroom supervisors would not be required to perform tutoring functions. The majority of students also felt that tutoring is unnecessary, although a large number of respondents indicated they would like this form of assistance.

Continued expansion of IITV programming will require substantial additional support to the library services at receiving sites. Forty percent of Term 2 student respondents found the college library service to be either poor or very poor, as opposed to the 32.5 percent who found that it was either very good or excellent. To reinforce receiving site collections on a course-by-course basis, print materials for IITV programming were delivered by courier. Failures at various points in this system occasioned frequent complaints from receiving sites. Adequate lead time and painstaking co-ordination are required to assemble, dispatch, and confirm delivery of the necessary materials in sufficient quantities to serve each class at all receiving sites. The complexity and cost of this service will grow in more or less direct proportion to the number of receiving sites.

## Administrative Structures and Processes

It is technically possible for any site within an IITV network to originate programmes as well as receive them. However, the network requires a central organization to manage the facilities, assemble and allocate resources, co-ordinate programming, and provide or respond to programme evaluations. For the pilot project, BCIT

[1]Appendix 1, page 65.

served as the central co-ordinating agency. This role is to be played by the Knowledge Network of the West Communications Authority in future IITV programming. Further clarification of the relationship between the Authority and participating institutions (both as originating and as receiving sites) is no doubt forthcoming.

The IITV evaluation reports indicate that attention should be directed to two critical administrative weaknesses in the pilot project. Firstly, there have been repeated protests concerning the amount of lead time available for programme planning and organization. At the originating site, instructors, administrators, and technical staff require more time than was allowed in the IITV project to prepare course descriptions, publish and distribute brochures, assemble student materials, and reallocate human resources. Receiving sites similarly need more time to survey and confirm community education needs, advertise courses, and allocate physical facilities, staff, and funds. Receiving sites are unlikely to tolerate a perpetuation of the near-crisis conditions which characterized the IITV project.

The second administrative weakness evident from the IITV evaluation reports is the absence of a systematic procedure for gathering, analyzing, and responding to programme suggestions. Although the colleges were frequently invited to submit programme proposals, the IITV project provided no structured opportunity for agreement and consensus concerning long term programme priorities. It is clear that the colleges and other institutions do not wish the IITV authority to impose its programme priorities on the communities they serve. The May 15 meeting did provide a sort of shopping list of suggestions for further courses. However, this list offers no indication of the student numbers that might be attracted, nor does it specify any other criteria that might be used to establish priorities.

Evaluation Overview

The pilot project was initiated to test and assess the potential use of IITV in opening regular post-secondary classrooms to distance learners. The evaluation set out to determine how well this goal was met and to identify operational problems discovered through the project. In essence, the entire undertaking can be viewed as a practical experiment, with the project providing an observational reference and the evaluation adding analytical strength.

The evaluation highlights are as follows:

1) Pre-test and post-test studies conducted by the University of Victoria indicate that it is possible to teach successfully some post-secondary courses by IITV. These results are consistent with the opinion of IITV student respondents who judged IITV favourably in comparison with classroom and correspondence instruction.

2) IITV courses cannot be presented to fill isolated gaps in individual college programmes. College representatives insist that there is a need for credit courses, but the IITV experience suggests that such courses are seldom attractive when offered on a piecemeal basis unless they meet a unique individual or community need.

3) There is strong industrial and public demand for professional upgrading courses, supported and in some cases provided by employers and professional associations.

4) Effective use of the medium requires that instructors be carefully selected and in many cases trained to present IITV programming. Skill development is necessary in the operation of the equipment, in instructional techniques,

in the devlopment of student interaction through IITV, and with other uses of video as a learning aid.

5) Efficient use of an IITV facility requires better instructional support facilities than were available during the pilot project. Technical upgrading of the equipment, improvements to classroom facilities, and better library services are necessary to raise the level of faculty, staff, and student satisfaction. Of crucial importance is the provision of technical assistance, co-ordination staff, and classroom supervision.

6) Organizationally, the pilot project has confirmed the need for a central agency to conduct planning, co-ordinate programming, allocate IITV resources, and evaluate the operation. Administrative positions explicitly dedicated to the IITV operation also are essential at originating and receiving sites.

7) Administrative requirements include greater lead-time in which to plan and organize programmes, a more structured approach to the establishment of programming priorities, and more effective communication.

8) Several colleges have indicated that they consider the level of funding provided for their participation in the pilot project to be inadequate. The need for additional funding throughout the system obviously will be more urgent if it is hoped to improve IITV programming rather than simply maintain the quality of service offered in the pilot project.

As an even further abbreviation, it is fair to say that most participants were satisfied with the teaching potential of IITV, but convinced that the conditions imposed on the facility by the pilot project should not be applied to further programming. Several major adjustments were made during the life of the project, and other developments have occurred since. It remains to be seen whether further experiments will satisfy the expectations of those who have contributed time and effort to the establishment of a province-wide IITV facility.

## FUTURE IITV EVALUATIONS

One of the more important lessons to be learned from the pilot project is that no single post-secondary institution can hope to evaluate, simultaneously and effectively, all of the issues requiring attention. What is required is a tightly organized evaluation strategy, in which each form of evaluation is assigned to an institution or agency which is properly equipped to conduct the necessary research. It seems reasonable to suggest, for instance, that the Knowledge Network Of The West Communications Authority might be expected to collect and analyze the information needed for management control of the IITV facility. The more complex inquiries, involving educational and management research, are best assigned to university research teams, private consulting firms, or specialists retained by the Authority. This would leave originating and receiving centres free to concentrate on ensuring that the IITV network satisfies their own programming objectives and the educational needs of the regions they serve. In effect, what seems necessary is not one evaluation but a series of appraisals that can be commissioned, co-ordinated and in some cases conducted by the agency responsible for managing the facility.

### Educational Research

There is no disputing the fact that post-secondary institutions have a responsibility to ensure that their programmes are educationally effective. Conventional evaluation practices, such as instructor appraisals and reviews of student performance no doubt should continue to be applied independently by participating institutions[1]. Requests for research into the educational effectiveness of IITV do not negate the value of such appraisals. Nor should they be construed as a perverse insistence on subjecting IITV to a measure of scrutiny from which other methods of instruction are absolved. The simple fact is

[1] The University of Victoria Anik-B evaluation (Appendix 4 page 173) provides a convenient model for originating centre appraisals of educational effectiveness.

that many administrators and instructors would like to be reassured that IITV experiments are not being conducted at the expense of their students.

The credibility of IITV could be strengthened readily by the publication of a brief review of the literature describing previous IITV operations in North America and elsewhere. From Riches' comments, it is clear that the Anik-B experiment differed in several significant respects from the TAGER and Stanford models, and that these differences were not generally understood by participants in the pilot project. Systematic comparisons and a summary of the evaluations made of each model would help to minimize the uncertainty with which IITV is sometimes approached. Such a review could be prepared rapidly by a professional educator who is conversant with the literature and the issues. The resulting publication could be distributed by the Knowledge Network Of The West Communications Authority to originating and receiving centres and to potential participants.

Further research may be judged necessary to compare the educational effectiveness of IITV with other modes of instruction, or to determine programme design features. Research into questions of this nature is a common occurrence in the university graduate schools. It seems reasonable to suggest, therefore, that the Knowledge Network Of The West Communications Authority might encourage and negotiate a series of partnership arrangements, in which academic research teams are granted access to the IITV operation and the results are made available to the Authority and to participating institutions.

Management Research

Expansion of IITV programming in British Columbia will entail the management of an expensive, geographically-dispersed facility entirely dependent on timely co-operation from a large number of autonomous institutions. The pilot project has confirmed the likelihood that

serious planning, organizational, and communication problems will be encountered in such a network. There are no established models for overcoming such problems in an operation of this nature, either in government or in industry. It is always possible, of course, to develop the management structure by trial and error, relying on the management information system to identify problems and to confirm the successful implementation of solutions. In view of the novelty of the operation, the size of the public expenditures involved, and the importance of establishing a highly credible image among educators and industrial participants, it may be advisable to secure advice and continuing assistance from a qualified management consulting team. This team might be given responsibility for recommending, establishing and evaluating methods to assess the effect of IITV on faculty workloads; for ensuring regular communication among participating institutions; and for assisting the colleges in identifying and rank ordering community educational needs.

Cost analysis is a second area in which professional management expertise, for an extended period of time, appears essential. Originating and receiving sites may wish to maintain independent records of IITV costs. However, in order to collect the information needed to analyze the overall performance of the IITV network, it will be necessary to establish consistency in the records kept by participating institutions. Moreover, complex cost/benefit studies may require the services of financial consultants other than those retained to satisfy the regular cost accounting requirements of the operation. The financial management of a permanent IITV facility cannot in any case be dealt with as an occasional, part-time concern of programme administrators.

What may be termed, "educational market research" - i.e., the systematic identification of public educational priorities - is a third endeavour in which the IITV network might benefit from professional advice. Shopping lists, prepared hastily in response to vacancies in the IITV timetable, may be justified on the grounds of expediency in a pilot project, but

they do not constitute a responsible basis for long-term programming. Several major studies of provincial training requirements are already available. The colleges and provincial institutes also have a great deal of information, gathered from contacts with community groups, industry, and professional associations. What is needed, first of all, is an organized procedure whereby this information can be collected and analyzed. Secondly, it is essential that participating institutions and the Knowledge Network Of The West Communications Authority develop an orderly process through which to conduct collective priority-setting. The Knowledge Network Of The West Communications Authority is the logical agency to acquire the technical expertise necessary to establish these processes.

Management Information

IITV administrators are beset daily by problems which demand immediate attention. To name just a few, telephone failures, equipment repairs, requests for course information, student complaints, and budget adjustments must be dealt with as a matter of routine. It seems almost unkind, in view of such demands, to suggest that deliberate attempts should be made to identify undisclosed and persistent areas of weakness. Nevertheless, the pilot project has demonstrated the value of committing staff resources to the production of ongoing programme appraisals. It is highly probable that significant problems would have escaped the attention of the project administrators in the absence of an independent evaluation team.

The results of ongoing appraisals must be interpreted and distributed with discretion. In particular, appraisals which reflect on the overall success of a programme or on the competency of IITV instructors and staff should be channelled by the programme administrators through the established lines of authority at the originating centre. Information which is normally reserved for private discussion between an employee

and his supervisor should not be communicated directly by the evaluator. Paradoxical though it may seem, management intervention in the disposition of appraisals is essential to protect the independence of the evaluator, since information of a potentially embarrassing nature is often forthcoming only if strict confidentiality is assured.

# APPENDIX 1

## ANIK-B EVALUATION: TERM 2 BCIT

# ANIK B EVALUATION

Submitted by

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ANIK-B EVALUATION

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## I INTRODUCTION

This is the final evaluation report of the B.C.I.T. Anik B (1979/80) Project. Progress reports were issued during Term 1 (September-December, 1979), memos and Early Course Evaluations to instructors as well as Weekly Comments were issued throughout the project, and an Interim Report based on Term 1 was prepared in March, 1980. In addition, reports were submitted following on-site visits to receiving centres.

The purpose of the evaluation was to provide formative evaluation as the project progressed and to provide a summative evaluation based on the stated and implied objectives, and which would identify areas for improvement and courses for the future. (See Appendix 5)

B.D. Yeoell was requested by the Task Force to provide the evaluation for the project. E. Riches and B.D. Yeoell determined the objectives and design of the evaluation. Details have been outlined in previous reports. The evaluation was carried out by E. Riches while M. Mennear and S. Conder assisted in the collection of data and summarization of non-numerical data.

This evaluation is based on the response to questionnaires (Appendix 1), interviews and on-site observations, with emphasis on Term 2 (January-May, 1980) reporting. Those responding were students, instructors, Anik B staff at receiving and sending institutions as well as community representatives. Statistical summaries will be found in Appendix 3.

This evaluation shows that overall, the Anik B project was a success. Technically, I.I.T.V. was acceptable, however many problems occurred with Department of Communications equipment and with telephones (interactive and land lines). (See Appendix 4)[1] As might be expected, some courses were highly acclaimed, others were not.

The study showed that the majority of students would enrol again in similar courses and most instructors, coordinators and others would like to be involved again in such a project.

[1] Page 107 .

## II HIGHLIGHTS OF THE FINDINGS OF THE EVALUATION OF THE ANIK B PROJECT

This evaluation reveals the potential for future use of I.I.T.V. in a province such as British Columbia or in a territory such as the Yukon. Career training, updating, and other forms of post-secondary education are virtually unobtainable at present in many areas. During the 1979/80 Anik B project which has just concluded, a variety of educational and career updating offerings were made available to students at eleven college centres located outside the larger educational centres.

Feedback to the evaluators indicated areas of strength and areas where improvements would be most productive for future endeavours. By the second term there were many improvements. However, while equipment at B.C.I.T. improved, at some sites it deteriorated. Many positive trends were noted in comparing Term 2 with Term 1.

### A. Educational Effectiveness

The study showed I.I.T.V. to be educationally effective. From the questionnaires and comments I.I.T.V. was found to be very or moderately effective compared with regular classroom learning and even more effective compared with correspondence course learning. B.C.I.T. students were less positive than receiving centre students.

On a short pre-test and post-test study, no statistical differences were found between scores of students where the instructor was present and receiving centre students who were on their own. At some centres scores were higher.

B. Acceptability

I.I.T.V. was considered to be a viable and acceptable way of receiving courses by most students, instructors, coordinators, and others. For regular B.C.I.T. students however, it was not a popular project, especially during the first term when it was in the experimental stage. For students at the receiving sites it is best described in their own words "Without Anik, we would have no other way of obtaining the information". Some instructors were excellent - others were not, however, with training, they might have become more acceptable.

At some college centres there was apprehension (especially on the part of instructors) that such a project might eventually result in a decrease of staff at their college. It is apparent that they had not considered the possibility of offering courses themselves to remote parts of their college territory. Some instructors are presently flying or driving great distances to other sites for classes each week. A delivery system such as Anik could enhance the possibilities, not decrease them.

There were few withdrawals from courses that spanned short time periods. Withdrawals that did occur were mainly the result of workers being moved out of the area, the level of a course being inappropriate to some students, and miscellaneous problems.

C. Operation of the Project

Despite the handicaps of short lead time, poor quality equipment, lack of manuals and spare parts for the

equipment and limited funding, it would appear that the potential for future trouble-free operation is good.

One prerequisite of a successful project is cooperation: a good quality of cooperation was achieved between sending institutions and organizations, and receiving centres.

## III THE PROJECT OBJECTIVES

The stated objective of the project was:

"To test and assess the potential for future use in British Columbia of Interactive Instructional Television, using methods adapted from TAGER, Stanford, and other similar models, at an undergraduate level using regular courses, classes, and instructors over a full instructional term, and on a regularly scheduled basis, using a satellite to overcome the vast distances in western and northern Canada. The project will terminate May 31, 1980."

Apparent unstated objectives from the Ministry were:

1. To develop a spirit of cooperation with receiving colleges (including one in the Yukon) and sending institutions as well as organizations engaged in training their members.

2. To carry out the project as efficiently as possible (despite a short lead time), while working with limited funds.

## IV THE STUDY PLAN

### A. Methods

Questionnaires, based on the stated objective, were designed to measure the educational effectiveness and the acceptability of I.I.T.V. and to assess the operation of the Anik B project. (See Appendix 1 page 77)

Some simple questionnaires were designed for early evaluation and these were processed by hand. The information received was used for reports that were given to the coordinator and director of the project, as well as to instructors and others as indicated.

Interview schedules were also designed for on-site visits and for interviews with instructors.

The major questionnaires (Nos. 2 and 4) were given at the end of each term and the data were processed by computer.

### B. The Study Groups

The following were the study groups used in the evaluation of Anik B:

1. Students[+] who were enrolled in Anik B courses at B.C.I.T. and at all receiving centres. (See Appendix 2 for Registered and Withdrawn students.)

2. Persons involved in all aspects of the planning, implementation, and operation of the project. These included instructors, technicians, and the administrators

[+] Replies were not requested from courses that were not sponsored by BCIT although a few were received and included.

and coordinators of Anik B at B.C.I.T. Participants of other sending institutions were asked to complete questionnaires, as were the receiving institutions and other participants such as the Ministry of Transportation, Communication and Highways.

3. Community members, instructors, administrators and students were interviewed on site at Fort St. John, Dawson Creek, Whitehorse, Gold River, and Port Alberni. (These included the Director of Nursing at Fort St. John Hospital, instructors at receiving sites, a member of the board of Northern Lights College, and nursing representatives at several centres).

## C. Statistical Analysis

Questionnaires 2 and 4 were analysed using the Statistical Package for the Social Sciences. Simple and cross tabulations, where appropriate, were executed. The chi-square test of significance was used to determine the existence of systematic relationships between two variables. The level of a significant result was set at $P = .05$ and highly significant at $P = .01$. Because of bulk, the detailed analyses do not appear in this report, but are available for inspection in the Anik B evaluation files.

In analysing Questionnaire 2 with regard to student location, it was decided, after looking at the distribution, to analyse the data by comparing students at B.C.I.T.[+] (where the instructor was present) with Others (students from all other centres). Throughout much of this report comparative analysis between Term 1 and Term 2 has been reported.

Statistical summaries for Term 2 of Questionnaires 2 and 4 may be found in Appendix 3 page 97.

[+] In Term 1, these were mainly regular B.C.I.T. students. In Term 2, these were mainly outside students who came to the B.C.I.T. site.

## V OBSERVATIONS

### A. Educational Effectiveness of I.I.T.V.

1. All students were asked "Considering the method of course delivery and its effect on learning, how effective do you feel I.I.T.V. is, compared with regular classroom learning?" and "Compared with correspondence learning?"

   The replies for Term 2 when comparing I.I.T.V. to regular classroom learning were almost identical for B.C.I.T.[+] students as for the Others. Most responded positively (29 (82.9%) at B.C.I.T. compared with 128 (81.5%) at Other sites). In comparing the relationship between Terms and the responses to "educational effectiveness compared to regular classroom learning" a highly significant relationship existed. (In Term 1 only 59 (54.6%) replied positively compared with 157 (81.8%) in Term 2.)

   With respect to the educational effectiveness of I.I.T.V. compared with correspondence courses, 32 (97.0%) B.C.I.T. students responded positively compared with 134 (89.3%) of the Other students. The relationship was not statistically significant. In comparing the relationship between terms however, there was again a highly significant relationship. (In Term 1, 84 (87.5%) were positive, 7 (7.3%) at the mid point, 5 (5.2%) negative, while in Term 2 166 (90.8%) were positive, 16 (8.7%) at the mid point, and only 1 (0.5%) negative.)

[+] As mentioned earlier, these were mostly part-time students in Term 2.

In the "very effective" category to each of the above two questions in Term 2 there was an increase - 13.2% related to regular classroom learning, and 16.8% increase in the comparison to correspondence courses.

2. The evaluator requested instructors to prepare pre and post-tests for purposes of testing educational effectiveness. However, for a variety of reasons such testing was not carried out, with two exceptions:

   a. Derek Knox conducted a test based on a single instructional module from a one evening session in the 12 week Anatomy & Physiology course. Details of his test are available. To summarize his findings, a t-test was used to compare the learning achievement (using group mean gain scores) between students in the live B.C.I.T. classroom and those at the receiving sites. No statistical difference was found. While the data are limited, this is a favourable indication of educational effectiveness of a course that also received excellent comments from students.

   b. Wally Quarry, instructor for "Concrete" carried out pre and post-testing and the information will be made available at a later date.

3. The conclusion reached from 1a and 2a is that I.I.T.V. is an educationally effective way of learning, compared with not only correspondence course learning but with

regular classroom learning. This information is based on questionnaires, comments by instructors of Anik B courses, teachers interviewed at receiving sites, site coordinators and others.

B. The Impact of I.I.T.V. on Students

1. Receiving Centre Students

The most common response from students at receiving centres was that "without Anik B the information simply would not be available to them". However, they requested:

1. Tapes for shift workers.

2. Information be distributed to potential students early.

3. Avoid scheduling classes for Friday afternoons.

4. More demonstrations and arrange for labs at sites where indicated.

5. Don't drag courses out over too long a time period.

6. Instructors come with prepared charts, diagrams and pictures, thus saving class time.

7. College sites have equipment in order and functioning at the beginning of each class. There should also be someone present who is responsible for handouts, etc., before the class begins.

8. Some students would still like an in-class tutor. Others, (especially those who felt they had a good course) were quite satisfied with the T.V. presentation alone.

9. If for some reason a class must be cancelled - give them advanced notice. (Don't forget - some students are driving two hours in each direction to view a given course+).

10. The availability of coffee. Many have travelled great distances, in inclement weather.

11. For some courses, printed material is still arriving late, especially when new courses start. It is not a courier service problem any more.

12. Graded problems and exams. (Also a recommendation of the Stanford Study.)

13. More land lines for telephones into B.C.I.T. and sequential answering. Some telephones were out for weeks, so no interaction possible.

There appeared to be quite a few withdrawals in Term 1, however withdrawals during Term 2 were few. (See Appendix 2++) From questionnaires and discussions with coordinators the following may be noted:

1. Many highways employees who were enrolled were moved from a receiving centre area to areas not serviced by Anik B +.

+ Items 9 and 1 appear to indicate a need for more receiving centres where a need can be justified.

++ Page 93.

2. For some students, the level of the course was not appropriate. At least two students withdrew because the course used the metric system in which they were unfamiliar.

3. There were some regular B.C.I.T. students with overall academic difficulties who withdrew from the institute at the end of Term 1: e.g. Five Mining students had difficulties, but only one failed the course at the end of Term 1.

4. At least at one site, on more than one occasion, students arrived and found the classroom locked. (While it cannot be verified I believe it occurred at three sites.)

5. Personal factors, loss of interest in the course, poor teaching, would rather take a correspondence course at own time and pace, were other factors noted.

6. Many students signed up for only portions of a course so cannot be considered as withdrawn students, nor can those who took a course "for interest" and did not complete a final assignment.

2. Students Located at B.C.I.T.

The impact of these students taking Anik B courses (where the instructor was present) was often different from students at other centres. Their main comments are as follows:

1. Uncomfortable classroom, unattractive, hot, stuffy, overcrowded.

2. The T.V.s blocked the view of the instructors (need to be placed lower). The size of the monitors is not the problem - just the placement.

3. Having to use the telephone is a nuisance. Microphones have previously been suggested as an alternative to phones in the B.C.I.T. classroom, and a reasonable explanation has been given for not using them. However, an instructor has suggested microphones that could be switched on by the instructor when a student raises his hand to speak, thus eliminating background noise at other times.

4. At time of registration, classroom location not given and difficult to find for the first session.

5. If the instructor was "excellent" they found the course beneficial in spite of above mentioned items.

6. If on shift work, they appreciated being able to view tapes in the library.

3. General Acceptability

The overall T.V. presentation was "excellent" or "very good" for 126 (60.1%) Term 2 students, while 67 (34.7%) said it was "acceptable". This is in contrast to Term 1 where only 42 (29.5%) replied "excellent" or "very good" and 86 (60.6%) "acceptable".

Quality The relationship between Terms and T.V. presentation quality was highly significant.

From student comments it was very obvious that second term courses were by and large superior to those of the first term. Term 2 students made many favourable comments regarding the quality of the teaching itself.

Interest During the second term 158 (79.0%) students stated the programs held their interest "all" or "most of the time" compared to 62 (55.8%) students in Term 1. The relationship was highly significant between the two variables. There were only 10 (5.0%) negative responses in Term 2 compared with 16 (14.4%) in Term 1. No significant differences were noted in comparing responses of B.C.I.T. and Other students in Term 2.

With respect to wanting face-to-face contact with instructors, this was found to be more important to B.C.I.T. students than to the Other students.

Regarding understandability of the course itself, again responses were more positive in Term 2 and the relationship between Understandability and Terms was highly significant.

With regards to tutoring, most students felt it was not needed. In fact it was felt to be more accessible and available than needed.

Students were asked how often they asked questions. In Term 2 more than half the students 102 (52.8%) responding said "Not at all", compared with 58 (41.1%) in Term 1. The relationship between Questions and

Terms was not significant. When asked if they would have asked questions more often had they been in a regular classroom, there was a highly significant relationship with 72 (37.9%) Term 2 students replying "No" compared with 39 (22.1%) Term 1 students. It was the "Other" Term 2 students rather than the B.C.I.T. students who said "Yes". On observing students at receiving centres they seemed quite reluctant to ask questions. For this reason it would be helpful to have more encouragement from the instructor and call people by name and/or by centre.

Students were asked if the time of day their course was held was convenient. 159 (82.4%) respondents stated it was at a convenient time while 34 (17.5%) replied negatively. In the eastern part of the province where the time is an hour later, students found it especially unpleasant in winter if they had a distance to drive home.

The best indicator of the acceptability of I.I.T.V. courses by students is the following table.

WOULD YOU ENROLL AGAIN?

| | | YES | NO | UNDECIDED | TOTALS |
|---|---|---|---|---|---|
| TERM 1 | No. | 79 | 29 | 36 | 144 |
| | Pct. | 54.9 | 20.1 | 25.0 | 100.0 |
| TERM 2 | No. | 158 | 6 | 24 | 188 |
| | Pct. | 84.0 | 3.2 | 12.8 | 100.0 |
| TOTALS | No. | 237 | 35 | 60 | 332 |
| | Pct. | 71.4 | 10.5 | 18.1 | 100.0 |

C. The Impact of I.I.T.V. On Anik Instructors

Ten interviews were conducted during May and June with the principal course instructors and two course coordinators in charge of B.C.I.T. Term 2 courses. In addition, the instructor from another sending institution was interviewed. Questionnaires were completed by some and all stated they would be willing to be involved in a similar project again under the following conditions:

1. Better facilities for transferring slides and film - (three mentioned Broadcasting as being somewhat less than helpful). Technicians were helpful when asked to do this work.

2. More lead time, and for instructors of regular B.C.I.T. courses, extra time for special preparation.

3. While all stated they had been shown the equipment, they said they had not been given special training or preparation. Technicians as well as other Anik and C.E.I.S. staff were willing and helpful when asked. Some felt that learning the hard way was the best, but more stated that special instruction should be given or at least a list of helpful hints. In December, upon request, the evaluator prepared a list for instructors, but it appears not to have been used. The list is attached to this paper with further suggestions. (See Appendix 6.) The Industry Services Instructional Techniques course was highly recommended for instructors by one instructor - in fact he said it should be mandatory!

4. More coordination, more communication, more production and more assistance! Most considered a contact person at each site an absolute necessity - to be available at the start of each class, to phone in attendance, and to look after technical aspects. Tutors at each site were considered unnecessary except by one instructor.

5. One would like the studio adaptable to left handed instructors.

6. Some instructors would like clarification of copyright rules regarding use of illustrations from books, etc.

7. Instructors feel that it is their duty to prepare adequate information to attract the right students, however, lead time is necessary. They don't consider advertising to be their responsibility.

8. Video tapes were not used by most instructors as feedback. Those who did use tapes, found them helpful and recommended their use.

D. Operation of the Project

This section deals with the overall organization and operation of the Anik B project at B.C.I.T. and the receiving centres. Feedback from questionnaires, comments, and interviews at B.C.I.T. and during on-site visits at five receiving centres indicate areas of strength and areas where improvement would be most productive for similar projects in the future.

1. Overall Operation

a. In Term 1, 41 participants (other than students) of the project responded to Questionnaire 4, while in Term 2, 19 persons responded - 5 from B.C.I.T. and 14 from outside the Institute. With such small numbers statistical tests are inappropriate, therefore trends only are reported in this section. See Appendix 3[+] for statistical summaries.

In comparing Term 2 with Term 1 the following trends were noted:

i Respondents were more positive towards the organization of the project at B.C.I.T. in Term 2. For the organization at the colleges the response was also more positive in Term 2 than in Term 1.

ii In Term 2 the responses were more positive to a number of questions related to the organization: "How clear to you were the objectives of this project", "... your role and your duties", knowing what was going on, and ease at getting information or expertise when needed.

iii Regarding cooperation of persons directly involved in the project at their site, the responses were similar in Term 1 and 2 and there were no negative responses. With regards to cooperation with those directly involved at B.C.I.T., there was

[+] Page 97.

a more positive trend, again with no negative responses, and only 3 responses at mid point. Regarding conflicts, a positive trend from Term 1 to Term 2 was also noted. In getting cooperation or help from those not directly associated with the project, responses were less positive in Term 2.

iv Preparation time was felt by respondents to be more inadequate in Term 2 than in Term 1 with 12 (66.6%) responding negatively.

v The same negative trend was found regarding supply of staff with 11 (61.1%) finding the supply to be inadequate.

vi The adequacy of equipment at the sites was not seen to improve during Term 2 with only 7 (38.9%) replying positively, 5 (27.8%) at the mid point, and 6 (33.3%) negatively.

b. Some questions from Questionnaire 2 (Student Evaluation) dealt with similar aspects as mentioned above and in some cases the responses were quite different.

i The equipment, from the students' point of view was seen to be more adequate by Term 2 students than the Term 1 students with only 6 (3.3%) Term 2 students replying negatively, 9 (4.8%) at the mid point and 172 (91.9%) positively.

The statistical relationship between terms and adequacy of equipment was a highly significant one. Clarity of picture and quality of sound were also considered more favourable by Term 2 students than by Term 1 students.

ii Term 1 students would have liked more help/interest from their college while Term 2 students were more satisfied though the difference was not statistically significant.

iii Regarding classrooms, there was a significant relationship between terms and adequacy of the classrooms with fewer negative replies in Term 2 from Other students.

iv Registration procedures were viewed more positively by Term 2 students than those of Term 1.

v Library services were viewed more negatively by Term 2 students overall. Half the respondents felt it was "poor" or "very poor". Respondents from Terrace, Whitehorse, and Mackenzie accounted for 85% of the negative responses. (At B.C.I.T. there were only two negative responses.)

2. The Main Operational Problems (from the B.C.I.T. point of view)

a. The short lead time from the set up of the hardware to the commencement of the first class.

b. Courses commencing all at once rather than being phased in.

c. The breakdown of Department of Communications equipment (because of prototypes on LCET, and use of old equipment arriving at centres in less than optimum condition due to lack of time for refurbishing and long distance between projects. Lack of spare parts also evident. In addition there was a lack of skilled operators and no operating manuals for those who tried to become skilled at operating the equipment. Much was trial and error, especially in Term 1. It should be noted, however, that by the end of Term 1, despite no manual, there was a decided improvement, especially after two Broadcast students were hired on a regular basis at B.C.I.T.

3. The Impact of I.I.T.V. on Receiving Centre Colleges

While much of what is to be said has already been said before, at the end of the second term it is still being said!

a. In smaller, remote centres everyone (including instructors) seems pleased with the project overall. Possibly more information regarding the project to those not directly involved is indicated because some resistance from faculty persists in larger outlying centres (Kitimat, Fort St. John, Prince George).

b. It is necessary to have adequate funds for advertising and coordination - a full time or at least half time coordinator is essential.

At the May evaluation meeting at least two centres indicated it would be impossible to carry on without funding for the above mentioned functions. Until there is a commitment from the Ministry, potential centres are hesitant to get into anything new.

c. Lack of lead time to advertise and organize is still a problem, though there appeared to be some definite improvement from January onwards. Several sites realized it was important for them to hire someone part time for the additional load and proceeded to do so.

d. Inadequate equipment, including telephones, in some cases caused more frequent breakdowns towards the end of the project. These problems did not necessarily improve as the project progressed. There was little or no training to replace or repair defective parts. There was also a lack of spare parts. No manuals for operating the equipment were available.

e. Organization and coordination improved during second term but still a feeling persisted that there was some lack of continuity, guidelines, and general information. However no real conflicts were apparent. It was difficult to keep track of offerings and schedules.

f. Credit courses are required. There is also a continuing demand for nursing refresher courses and other career-related courses.

g. During Term 2 the community became more aware of the existence of the project and the possibilities for the future. Colleges were approached with their interests and needs. Some colleges who were not presently involved were urged to become participants.

h. It became apparent that there were fewer problems at college sites where the project was a part of the usual operations of a Continuing Education department than where it was added to Day School programs.

While much of this section regarding Operation of the Project has dealt with specific problems relating both to B.C.I.T. and the Receiving Centres, virtually all persons interviewed during Term 2, whether they be instructors who were involved, college tutors, coordinators, or administrators, were enthusiastic about the project overall. Of the 18 questionnaire respondents to the question of whether they would like to be involved again, 14 were positive about being involved again, 2 responded at the mid point, and only 2 were negative.

It should be noted that I.I.T.V. was also found to be useful in conferencing - especially a good way for coordinators to get together on a regular basis to discuss concerns and future planning.

## VI CONCLUDING REMARKS

### A. Acceptance of the Stated Objective

The Anik B project organization's intention was to follow more the Stanford system rather than that of TAGER. The TAGER system in particular featured "produced" courses.

The part of the Stanford system that appealed to those planning for the Anik project very simply put was that a T.V. camera could be placed in front of a regular class. Because there have been many statements made by those involved in the implementation and coordination rejecting "The Stanford System", it would appear that there was some confusion regarding the two systems in use by Stanford. Below is a summary statement of each.

1. Stanford Instructional Television Network (SITN)
   A television network which had audio talkback to the campus whereby industrial students could attend and participate without being in a formal degree program or receiving credit. They could however, do graded work and receive a grade relative to regular matriculated students.

2. The Tutored Videotape Instruction (TVI) Program
   A program where unedited video tapes were shown to small groups of students with a paraprofessional tutor for off-campus graduate engineering instruction. Academic credits towards a graduate degree were granted after an experimental trial period.

In effect, neither of the above systems were strictly followed in the Anik B Project (although it would appear that it was closer to the SITN). The aspect that participants specifically rejected was that in which a camera was placed in front of a regular class. Many refinements and modifications were found necessary and are deemed to be necessary for future I.I.T.V. use in British Columbia.

A comprehensive study of the Stanford systems was reported by J.F. Gibbons et al in 1976. The final experiment found TVI to be at least as good as classroom instruction in a large class and probably better for students of lower ability. They found it better than either classroom or live televised instruction because it permits students to ask more questions through organized discussion thus enabling them to find more answers for themselves. Among the many advantages of TVI over other techniques is that it is also cheaper than classroom or televised instruction.

In the second term there was a shift in the objective of providing "regular" credit courses to more continuing education and professional upgrading courses. This was the result of unavailability of regular courses (at a time convenient to students at receiving centres), the growing interest in upgrading courses by organizations and individuals at the sites, and to opposition from some college instructors to courses they might or could offer themselves.

B. Acceptance by Students

For students at receiving centres and for those coming to B.C.I.T. for a special course, the project was a success. Courses needed and wanted by students were offered and conducted. These same students wish to enrol in further similar types of presentations. Though less enthusiastic in their remarks (especially in Term 1), B.C.I.T. students would also enrol again in similar courses.

C. Acceptance by Participants

From the questionnaires, 9 (47.4%) of the participants of the project who responded in Term 2 stated they found the project personally satisfying. In Term 1 the proportion was only marginally lower. With regards to negative responses there were 12 (27.9%) in Term 1 compared with 3 (15.8%) in Term 2.

As to whether they would like to be involved in a similar project, in Term 2, 14 (77.8%) said they would, compared with 31 (72.1%) in Term 1.

In discussions with participants (including instructors) around the province, the feeling was that while things did not always go smoothly, for the most part they improved in the second term. The main obstacles to a potentially excellent project appeared to be lack of lead time, insufficient funding for staffing and equipment, as well as a lack of excellent instructors or lack of training for the others.

D. Acceptance by Potential Users

The community has become aware of the project in many areas, and organizations as well as individuals have approached the colleges. This has led to more interest for participation from colleges already in the program as well as requests from other colleges to participate in future. There is no shortage of enthusiasm from organizations who wish to participate. Unfortunately it is now mid-June, and no definite commitments have been made for equipment or satellite time. Lead time will again be a problem for Fall courses, however it is expected that there will be equipment and available satellite time.

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Anik B Evaluation Questionnaires

Return to: E. Riches,
C.E.I.S.

BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY
Burnaby, B. C.

# ANIK-B EVALUATION

## QUESTIONNAIRE 2 - OVERALL COURSE EVALUATION BY STUDENTS

(Check ONE reply for each question - that reply which is most appropriate)

1. Location

1. ____ B.C.I.T.
2. ____ Port Alberni
3. ____ Gold River
4. ____ Cranbrook
5. ____ Terrace
6. ____ Prince Rupert
7. ____ Whitehorse
8. ____ Prince George
9. ____ Mackenzie
10. ____ Dawson Creek
11. ____ Fort St. John
12. ____ Fort Nelson
13. ____ Other, specify _____

2. Course _____

3. Age
1. ____ -19
2. ____ 20 - 24
3. ____ 25 - 29
4. ____ 30 - 39
5. ____ 40+

4. Sex
1. ____ Male
2. ____ Female

5. Educational Level (Check ONE)

1. ____ Some elementary
2. ____ Elementary completed
3. ____ Some high School
4. ____ High school completed
5. ____ Some university, college or BCIT
6. ____ Some vocational or commercial training
7. ____ Degree or diploma
8. ____ Other, specify _____

6. Usual Occupation (Check ONE)

1. ____ Student
2. ____ Working, full time
3. ____ Working, part time
4. ____ Homemaker
5. ____ Unemployed
6. ____ Other, specify _____

7. If working, or usually working, give specific type of work

_____

Please (✓) the most appropriate reply to the following questions:

| | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|
| 8. How much do you feel you would have liked face to face contact with the instructor? | Very much | Somewhat | Neutral | Not very much | Not at all |
| 9. How difficult would it be for you to get this information/course in any other way? | Very difficult | Moderately difficult | A little difficult | Not very difficult | Not at all difficult |
| 10. Considering the method of course delivery and its effect on learning, how effective do you feel IITV is compared with regular classroom learning? | Very effective | Moderately effective | A little effective | Not very effective | Not at all effective |
| 11. Compared with correspondence course learning? | Very effective | Moderately effective | A little effective | Not very effective | Not at all effective |
| 12. How well did the programs hold your interest? | All the time | Most of the time | Some of the time | Not very often | Not at all |
| 13. How often did you feel you needed tutoring or counselling prior to and during the course? | All the time | Most of the time | Some of the time | Not very often | Not at all |
| 14. How accessible has tutoring been, when needed, in connection with your course? | Very accessible | Fairly accessible | Somewhat accessible | Not very accessible | Not at all |
| 15. How often was there participation from all viewing centres? | All the time | Most of the time | Some of the time | Not very often | Not at all |
| 16. How much more help/interest would you have liked from the college through which you registered? | Very much | Quite a lot | Some | Not very much | None at all |
| 17. How adequate was the equipment used for this project at your site? | More than adequate | Fairly adequate | Somewhat adequate | Not very adequate | Inadequate |

# QUESTIONNAIRE 2



| | (1) Excellent | (2) Very good | (3) Acceptable | (4) Poor | (5) Very poor |
|---|---|---|---|---|---|
| 18. The overall T.V. presentation was: | ____ | ____ | ____ | ____ | ____ |
| 19. The understandability of the course was: | ____ | ____ | ____ | ____ | ____ |
| 20. Other course materials were: | ____ | ____ | ____ | ____ | ____ |
| 21. In general, the clarity of the picture during the programs was: | ____ | ____ | ____ | ____ | ____ |
| 22. In general, the quality of the sound was: | ____ | ____ | ____ | ____ | ____ |
| 23. The textbook was or notes were (if applicable): | ____ | ____ | ____ | ____ | ____ |
| 24. The classroom where my class was held was: | ____ | ____ | ____ | ____ | ____ |
| 25. Registration procedures were: | ____ | ____ | ____ | ____ | ____ |
| 26. Library service at your college for the course was: | ____ | ____ | ____ | ____ | ____ |

27. If other courses with this type of presentation (via T.V.) were made available to you, would you enrol again?
    1. ____ Yes
    2. ____ No
    3. ____ Undecided

    Comments _____

28. If yes, or undecided, what courses would you like to see offered in your location:

    _____

    _____

    _____

29. During the T.V. presentations, how many times throughout the course did you ask questions or make comments through the interactive audio or telephone system:
    1. ____ Not at all
    2. ____ 1-5 times
    3. ____ 6-10 times
    4. ____ more than 10 times

30. If you had been in a regular classroom would you have asked questions more often?
    1. ____ Yes
    2. ____ No

31. Was the time of day for your course convenient for you? 1. ____ Yes 2. ____ No

    If no, comment _____

    _____

32. Please use the space below to give us your comments about the value of the program, the use of television instruction, the presentation, or any other aspect of the course. If there were laboratory sessions connected with your course include specific comments regarding these sessions.

    _____

    _____

    _____

    _____

    _____

BURNABY BC

ANIK-B EVALUATION

QUESTIONNAIRE #3 STUDENT WITHDRAWAL FORM

Dear Student: The purpose of this questionnaire is to determine why students did not complete their course, which was delivered by Anik-B satellite. Your replies will assist us in offering better services to students in the future.

1. Location _____ 2. Course _____
3. How many classes did you attend? _____
4. How beneficial did you find the classes you attended?
   1. Very beneficial _____
   2. Moderately beneficial _____
   3. Not very beneficial _____
   4. Not at all beneficial _____

   Comments: _____
5. Would you be interested in taking a couse by a similar method in the future?
   1. Interested _____
   2. Undecided _____
   3. Not interested _____

   Comments: _____
6. What was your main reason for withdrawing from the course(s)? Identify the most important reason(s). _____
7. Do you have any suggestions for improving this type of course presentation? _____

DATE: _____

Eleanor Riches
C.E.I.S.

Return to: E. Riches,
C.E.I.S.

BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY
Burnaby, B. C.

# ANIK-B EVALUATION

## QUESTIONNAIRE 4

Evaluation for all persons involved in the planning, implementation and operation of the project. Your replies will be used in statistical summaries only.

(Check ONE reply for each question - that reply which is most appropriate)

1. Location 1. ____ B.C.I.T. 2. ____ Other, specify _____

2. In what field is your major occupational activity?

1. ____ College Administration
2. ____ B.C.I.T. Administration
3. ____ College Teaching
4. ____ B.C.I.T. Teaching
5. ____ College Technical or Support Staff
6. ____ B.C.I.T. Technical or Support Staff
7. ____ Other, specify _____

3. What is your position in the Anik B project:

1. ____ Administration (B.C.I.T.)
2. ____ Administration (other locations)
3. ____ Technical and Support Staff (B.C.I.T.)
4. ____ Technical and Support Staff (other)
5. ____ Industry or Government Consultant or liaison
6. ____ B.C.I.T. Instructor for Anik B
7. ____ Other, specify _____

4. How many weeks have you spent working on the Anik B project? _____

5. What portion of your regular working time was spent on the Anik B project over the period of time you were involved in the project?

1. ____ Less than 25%
2. ____ 25 - 49%
3. ____ 50 - 74%
4. ____ 75 - 100%

6. Approximately how many hours over and above your regular working time did you spend on the project?

1. ____ Less than 20 hours
2. ____ 20 - 39
3. ____ 40 - 59
4. ____ 60 or over, if over how much _____

7. How many persons reported directly to you for this project? Number _____

TO UNDERSTAND YOUR SATISFACTION WITH VARIOUS ASPECTS OF THE ANIK B PROJECT, PLEASE INDICATE YOUR FEELINGS/PERCEPTIONS BY CIRCLING ONE ONLY, OF THE RANGE OF NUMBERS 1, 2, 3, 4, OR 5.

8. How adequate was the length of time available for preparation?

1. more than adequate 2. 3. 4. 5. inadequate

Comments _____

9. How adequately did you feel the project was organized at B.C.I.T.?

1. more than adequate 2. 3. 4. 5. inadequate

Comments _____

10. How adequately did you feel the project was organized at your College?

1. more than adequate 2. 3. 4. 5. inadequate

Comments _____

11. How clear to you were the objectives of this project?

1. very clear 2. 3. 4. 5. unclear

Comments _____

12. How clear to you were your role and your duties?

1. very clear 2. 3. 4. 5. unclear

Comments _____

13. Did you feel that you knew what was going on?
1. all of the time 2. 3. 4. 5. none of the time
Comments _____

14. How easy was it for you to get information or expertise when necessary?
1. very easy 2. 3. 4. 5. difficult
Comments _____

15. How did you find the general cooperation of the persons directly involved in the project at your site?
1. very good 2. 3. 4. 5. poor
Comments _____

16. How did you find the general cooperation of the persons directly involved in the project at B.C.I.T.?
1. very good 2. 3. 4. 5. poor
Comments _____

17. How easy was it for you to get cooperation or help from others who were not directly associated with the project?
1. very easy 2. 3. 4. 5. difficult
Comments _____

18. How well did you feel conflicts were resolved?
1. very well 2. 3. 4. 5. not well
Comments _____

19. How adequate did you feel was the supply of staff to carry out the project?
1. more than adequate 2. 3. 4. 5. inadequate
Comments _____

20. How adequate was the equipment used for this project at your site?
1. more than adequate 2. 3. 4. 5. inadequate
Comments _____

21. How would you rate your personal satisfaction with the project?
1. very satisfied 2. 3. 4. 5. dissatisfied
Comments _____

22. How much would you like to be involved in similar projects again?
1. very much 2. 3. 4. 5. not at all
Comments _____

DID YOU AT ANY TIME FEEL IT WAS DIFFICULT TO PROCEED BECAUSE OF ANY OF THE FOLLOWING. CHECK AS MANY AS APPLY.

23. ____ Lack of authority.
24. ____ Lack of assistance with problems.
25. ____ Lack of assistance with decisions.
26. ____ Lack of guideposts and check points.
27. ____ Lack of feedback.
28. ____ Feeling isolated.

Comments _____

29. What would you yourself do differently if asked to work again on a similar project?

30. General Comments. _____

# ANIK-B EVALUATION

## QUESTIONNAIRE 5 - A. EQUIPMENT TROUBLE LOG

For weekly completion by Group Leader, Tutor or Site Coordinator

For the week of: _____ Person Filling in Log: _____

Location: _____

Instructions: Fill in this form as breakdowns occur and repairs are made. Send the form to the BCIT ANIK-B Evaluator at the end of each week. If there are no breakdowns during a week, write NONE across the form. Record all breakdowns and fill in all columns when work has been completed. Carry incomplete repairs over to the top of the log of the following week.

| BREAKDOWN | REPAIR REQUEST | SERVICE CALL | REPAIR |
|---|---|---|---|
| Date and time of breakdown and name of manfunctioning equipment | Date and time repair request made and name of agency and person trouble reported to | Date and time of initial service call and description of trouble | Date and time repair completed and comments on the effectiveness of the equipment and repairs procedures |
| | | | |
| | | | |
| | | | |
| | | | |

ANIK-B EVALUATION

QUESTIONNAIRE 5 - B. WEEKLY COMMENTS

For weekly completion by Group Leader, Tutor or Site Coordinator

For the week of: _____ Person Filling in Log: _____

Location: _____ Course: _____

1. Briefly describe difficulties or criticism raised by students, and suggestions to remedy the situations.

_____

_____

_____

_____

_____

2. Briefly assess ease in operating and checking equipment.

_____

_____

_____

_____

_____

3. Briefly describe any difficulties with the courier service.

_____

_____

_____

_____

_____

4. Positive aspects - what are instructors, technicians and others doing well?

_____

_____

_____

_____

_____

BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY

# ANIK-B EVALUATION

## QUESTIONNAIRE 6 - EVALUATOR'S ON SITE OBSERVATIONS

1. Location

2. Height / size of screen suitable?

3. Seats comfortable, spacing between rows adequate, seats staggered for good viewing?

4. Can students hear well?

5. Desks have enough space for equipment, for writing?

6. Classroom airy and comfortable temperature?

7. Restrooms near classroom? Coffee available?

8. Lighting good?

9. Attitude of group leader, tutor?

   What sites and courses have tutors, roles and functions?

   What are needs for them?

10. <u>Discussion with students:</u>

    Good selection of courses?

    Courses in future? What is not available that they need, want.

    Quality of equipment and course materials?

    What can be done to improve present course, while there is still time.

    Have they concerns regarding course credits, marks for course - is it clear to them?

    Have they received texts and other materials on time?

    Is there someone on site to start class?

    Are students satisfied, do they receive enough assistance?



over

11. How adequate was the advertising for Anik B courses at various sites?

12. Discussion with site coordinators/evaluators:

Are they getting courses they want, that they could not offer themselves?

Have B.C.I.T. library services been used? How effective are they?

Are assignments being sent in and returned?

Are there concerns regarding marks for credit courses?

What about textbooks and other material from instructors?

Are they getting enough support/information from B.C.I.T.?

1. Responses to questionnaires good _____ bad _____

   Why? _____

2. Describe Organization Briefly _____

   _____

   Who Does Work? _____

3. How is registration done? _____

4. What organizational backing do you have? _____

   _____

5. How appropriate are courses for students? _____

   _____

6. What types of sessions go over best? _____

   _____

7. Instructors attitudes towards Anik project _____

   _____

BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY
BURNABY, B. C.

Return to:
E. Riches,
C.E.I.

ANIK-B EVALUATION

# QUESTIONNAIRE - 7

(For completion by instructors after second week)

Anik B classes have been in progress for over two weeks now, and we would like to ask you a few questions based on your most recent experience. If your replies are negative, please comment.

Please (✓) the most appropriate reply to the following questions:

| | | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|---|
| 1. | How adequate do you feel is the equipment for live transmission for your lessons? | very adequate | fairly adequate | adequate | not very adequate | not at all |
| | | ____ | ____ | ____ | ____ | ____ |
| | Comments: _____ | | | | | |
| 2. | How satisfactory is the assistance from the control room? e.g. switching cameras, signals, etc. | very satisfactory | fairly satisfactory | | not very | not at all |
| | | ____ | ____ | ____ | ____ | ____ |
| | Comments: _____ | | | | | |
| 3. | How satisfactory is the project administrative assistance? e.g. typing, information, etc. | very satisfactory | fairly satisfactory | | not very | not at all |
| | | ____ | ____ | ____ | ____ | ____ |
| | Comments: _____ | | | | | |
| 4. | How satisfactory is communication and getting information you need from sites outside B.C.I.T.? | very satisfactory | fairly satisfactory | | not very | not at all |
| | | ____ | ____ | ____ | ____ | ____ |
| | Comments: _____ | | | | | |
| 5. | How satisfactory are you finding communication and getting information you need from within B.C.I.T.? | very satisfactory | fairly satisfactory | | not very | not at all |
| | | ____ | ____ | ____ | ____ | ____ |
| | Comments: _____ | | | | | |
| 6. | How satisfactory was your briefing/training for teaching in this medium? | very satisfactory | fairly satisfactory | | not very | not at all |
| | | ____ | ____ | ____ | ____ | ____ |
| | Comments: _____ | | | | | |

80.01.23

BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY
BURNABY, B.C.

Return to:
E. Riches,
C.E.I.S.

ANIK-B EVALUATION

# QUESTIONNAIRE 8

(Early evaluation by Students at B.C.I.T)

Course _____ Date _____

We are all aware that during the beginning of your course many adjustments were necessary on the part of students, instructors and other staff. Now that you have been in class for at least two weeks, we would like your opinion on how you see your course now. Please base your replies on your most recent experience.

Please (✓) the most appropriate reply to the following questions:

| | | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|---|
| 1. | How satisfied are you with this method of instruction? | very satisfied | fairly satisfied | | not very | not at all |
| | | ____ | ____ | ____ | ____ | ____ |
| 2. | How satisfactory is the learning situation for you in this class compared with a regular classroom? | very satisfactory | fairly satisfactory | | not very | not at all |
| | | ____ | ____ | ____ | ____ | ____ |
| 3. | How adequate do you feel is the equipment being used as far as it affects you? | very adequate | fairly adequate | adequate | not very adequate | not at all |
| | | ____ | ____ | ____ | ____ | ____ |
| 4. | How satisfactory is the assistance from the control room? e.g. switching cameras, signals, etc. | very satisfactory | fairly satisfactory | | not very | not at all |
| | | ____ | ____ | ____ | ____ | ____ |

If you have any comments that will be helpful to your instructor or to the administrative staff please state below.

Comments: _____

_____

_____

_____

_____

_____

_____



80.01.23

Return to: E. Riches
C.E.I.S.

BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY

3700 Willingdon Avenue,
Burnaby, B. C. V5G 3H2

ANIK-B EVALUATION
QUESTIONNAIRE 9

To College Librarians: We are interested in your opinions regarding the experience you have had with the B.C.I.T. Library with regards to their services for the Anik B project. Your replies will be used in statistical summaries only.

1. Have you used the services of the B.C.I.T. Library in connection with I.I.T.V. programs which were available at your college in the fall of 1979? _____ Yes _____ No

2. If "No", could you explain briefly why you did not find it necessary to use their services? _____

_____

3. If "Yes" a. Was material you requested sent to you promptly?
_____ Yes _____ No

b. Was the quality of the material sent to you

_____ Highly satisfactory _____ Moderately satisfactory _____ Satisfactory

_____ Not very satisfactory _____ Not at all satisfactory

If negative, please explain briefly. _____

_____

4. Packages of learning materials were sent to you. Please comment on whether they supplied your needs, how students were made aware of their existence and whether they were used by students. _____

_____

_____

_____

_____

_____

_____

5. Please use the following space if you have any suggestions for improvements in the library service that B.C.I.T. could provide to colleges with regard to I.I.T.V. courses. If you have criticism of the existing service, please state. _____

_____

_____

_____

_____

_____

## INTERVIEWS WITH INSTRUCTORS

1. IN OUR QUESTIONNAIRE WE ASKED YOU WHAT PORTION OF YOUR REGULAR WORKING TIME WAS SPENT ON THE ANIK-B PROJECT, NOW WE WOULD LIKE TO ASK IF ARRANGEMENTS WERE MADE BY YOUR DEPARTMENT HEAD, FOR SOME OF YOUR USUAL DUTIES TO BE COVERED BY ANOTHER STAFF MEMBER?

2. WHAT TRAINING OR PREPARATION WAS OFFERED TO YOU TO ASSIST YOU IN PRESENTING YOUR COURSE USING THE I.I.T.V. MEDIUM? WHAT TRAINING OR PREPARATION OUGHT YOU HAVE HAD?

3. HOW MUCH DID YOU HAVE TO CHANGE YOUR USUAL TEACHING TECHNIQUES E.G. VISUAL AIDS, VERBAL PRESENTATION FOR THIS METHOD OF PRESENTING YOUR COURSE?

4. DID YOU USE THE VIDEO TAPES AS FEEDBACK TO YOURSELF AND HOW USEFUL DID YOU FIND THEM?

5. DID YOU OBTAIN USEFUL INFORMATION FROM THE "EARLY EVALUATION" BY BCIT STUDENTS? FROM COPIES OF WEEKLY COMMENTS SENT TO YOU?

6. WOULD YOU HAVE PREFERRED MORE DETAILED FEEDBACK FROM STUDENTS OR PEERS, AND IF SO, IN WHAT FORM WOULD YOU SUGGEST THIS TO TAKE?

7. DID YOU FEEL NEED OF A CONTACT PERSON AT EACH SITE?

8. DID YOU FEEL NEED OF A TUTOR AT EACH SITE?

9. DO YOU FEEL YOU SUPPLIED ADEQUATE INFORMATION & EARLY ENOUGH TO THE RECEIVING SITES TO ATTRACT THE RIGHT STUDENTS FOR WHOM THE COURSE WAS DESIGNED?

APPENDIX 2

TABLE OF REGISTERED AND
WITHDRAWN STUDENTS.

## ANIK-B STUDENTS
## REGISTRANTS AND WITHDRAWN* STUDENTS
## TERM 2, JANUARY-MARCH 1980

| | ALCOHOL ABUSE | | ANATOMY & PHYSIOLOGY | | CONCRETE | | GENETICS | | GEOLOGY & SOILS | | MINING | | SURVEY | | Totals | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | R | W | R | W | R | W | R | W | R | W | R | W | R | W | R | W |
| PT. ALBERNI | 0 | 0 | 7 | 2 | 5 | 1 | 10 | 0 | 3 | 1 | 1 | 0 | 3 | 2 | 29 | 6 |
| GOLD RIVER | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |
| TERRACE | 0 | 0 | 12 | 0 | 8 | 4 | 0 | 0 | 17 | 7 | 0 | 0 | 17 | 11 | 54 | 22 |
| PRINCE RUPERT | 0 | 0 | 5 | 0 | 3 | 3 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 2 | 11 | 6 |
| DAWSON CREEK | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | | 3 | 1 |
| FORT NELSON | 3 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 9 | 0 |
| FT. ST. JOHN | 3 | 1 | 1 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 14 | 1 |
| PRINCE GEORGE | 0 | 0 | 16 | 0 | 2 | 0 | 6 | 0 | 22 | 0 | 0 | 0 | 9 | 0 | 55 | 0 |
| MACKENZIE | 4 | 0 | 4 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 14 | 1 |
| CRANBROOK | 3 | 0 | 7 | 0 | 3 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 7 | 0 | 25 | 0 |
| WHITEHORSE | 12 | 1 | 4 | 0 | 7 | 1 | 4 | 0 | 5 | 0 | 1 | 0 | 0 | 0 | 33 | 2 |
| B.C.I.T. | 0 | 0 | 33 | 0 | 2 | 0 | 11 | 0 | 4 | 1 | 17 | 5 | 5 | | 72 | 6 |
| TOTALS | 28 | 2 | 91 | 2 | 38 | 9 | 40 | 0 | 58 | 11 | 20 | 6 | 48 | 15 | 323 | 45 |





* Withdrawn - Students could register by topic for Recreation, UBC Legal, and Real Estate, therefore "withdrawn" is not applicable for these courses.

| | AVALANCHE | | RECREATION SEMINARS | | U. OF * VICTORIA | | UBC * LEGAL | | EARLY * CHILDHOOD | | REAL * ESTATE | | NATIONAL * BUILDING CODE | | FIRE COMMISS. | | Totals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | R | W | R | W | R | W | R | W | R | W | R | W | R | W | R | W | |
| PT. ALBERNI | 24 | | 7 | | | | 26 | | 2 | | 35 | | 1 | | 24 | | 119 |
| GOLD RIVER | 15 | | 0 | | 7 | | 12 | | | | | | | | | | 34 |
| TERRACE | 19 | | 25 | | 15 | | 20 | | | | 10 | | 3 | | 10 | | 102 |
| PRINCE RUPERT | 24 | | 13 | | | | 30 | | | | 9 | | 3 | | 15 | | 94 |
| DAWSON CREEK | 5 | | | | | | | | 1 | | | | 7 | | | | 13 |
| FORT NELSON | 0 | | 2 | | | | 11 | | | | | | 5 | | 12 | | 30 |
| FT. ST. JOHN | 1 | | 0 | | | | 42 | | 7 | | 10 | | 8 | | 20 | | 88 |
| PRINCE GEORGE | 10 | | | | | | | | | | | | 21 | | | | 31 |
| MACKENZIE | 4 | | 7 | | | | 11 | | | | | | 2 | | 6 | | 30 |
| CRANBROOK | 14 | | | | 16 | | 21 | | 2 | | 25 | | 5 | | 13 | | 96 |
| WHITEHORSE | 0 | | 0 | | | | 26 | | 11 | | 8 | | 8 | | 9 | | 62 |
| B.C.I.T. | 17 | | | | | | | | | | | | | | | | 17 |
| Total | 133 | | 54 | | 38 | | 199 | | 23 | | 97 | | 63 | | 109 | | 716 |

95

* These courses were not sponsored by BCIT, however we have included them because we have received some information regarding them.

\+ Special Sections - Part of National Building Code.

APPENDIX 3

# STATISTICAL SUMMARIES

Return to: D. Riches, C.E.I.S.

BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY
Burnaby, B. C.

ANIK-B EVALUATION NUMERICAL ANALYSES

## QUESTIONNAIRE 2 - OVERALL COURSE EVALUATION BY STUDENTS

(Check ONE reply for each question - that reply which is most appropriate)

1. Location

| | | | | | |
|---|---|---|---|---|---|
| 1. 36 | B.C.I.T. | 8. 17 | Prince George | | |
| 2. 21 | Port Alberni | 9. 40 | Mackenzie | | |
| 3. 1 | Gold River | 10. 1 | Dawson Creek | | |
| 4. 6 | Cranbrook | 11. 21 | Fort St. John | | |
| 5. 40 | Terrace | 12. 6 | Fort Nelson | | |
| 6. 0 | Prince Rupert | 13. 1 | Other, specify | | |
| 7. 21 | Whitehorse | | | | |

2. Course _____

3. Age
1. 6 -19
2. 22 20 - 24
3. 32 25 - 29
4. 69 30 - 39
5. 57 40+

4. Sex
1. 97 Male
2. 78 Female

5. Educational Level (Check ONE)
1. 0 Some elementary
2. 8 Elementary completed
3. 10 Some high School
4. 38 High school completed
5. 35 Some university, college or BCIT
6. 12 Some vocational or commercial training
7. 96 Degree or diploma
8. 3 Other, specify _____

6. Usual Occupation (Check ONE)
1. 8 Student
2. 141 Working, full time
3. 27 Working, part time
4. 15 Homemaker
5. 0 Unemployed
6. 3 Other, specify _____

7. If working, or usually working, give specific type of work _____

Please (✓) the most appropriate reply to the following questions:

| | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|
| 8. How much do you feel you would have liked face to face contact with the instructor? | Very much | Somewhat | Neutral | Not very much | Not at all |
| | 51 | 58 | 82 | 4 | 6 |
| 9. How difficult would it be for you to get this information/course in any other way? | Very difficult | Moderately difficult | A little difficult | Not very difficult | Not at all difficult |
| | 91 | 53 | 22 | 21 | 15 |
| 10. Considering the method of course delivery and its effect on learning, how effective do you feel IITV is compared with regular classroom learning? | Very effective | Moderately effective | A little effective | Not very effective | Not at all effective |
| | 52 | 105 | 28 | 7 | 0 |
| 11. Compared with correspondence course learning? | Very effective | Moderately effective | A little effective | Not very effective | Not at all effective |
| | 124 | 42 | 16 | 1 | 0 |
| 12. How well did the programs hold your interest? | All the time | Most of the time | Some of the time | Not very often | Not at all |
| | 30 | 108 | 32 | 8 | 2 |
| 13. How often did you feel you needed tutoring or counselling prior to and during the course? | All the time | Most of the time | Some of the time | Not very often | Not at all |
| | 0 | 11 | 52 | 78 | 50 |
| 14. How accessible has tutoring been, when needed, in connection with your course? | Very accessible | Fairly accessible | Somewhat accessible | Not very accessible | Not at all |
| | 22 | 30 | 18 | 27 | 66 |
| 15. How often was there participation from all viewing centres? | All the time | Most of the time | Some of the time | Not very often | Not at all |
| | 10 | 37 | 70 | 61 | 7 |
| 16. How much more help/ interest would you have liked from the college through which you registered? | Very much | Quite a lot | Some | Not very much | None at all |
| | 5 | 21 | 62 | 56 | 40 |
| 17. How adequate was the equipment used for this project at your site? | More than adequate | Fairly adequate | Somewhat adequate | Not very adequate | Inadequate |
| | 56 | 116 | 9 | 4 | 2 |

QUESTIONNAIRE 2

- Page 2 -

NUMERICAL ANALYSES

| | (1) Excellent | (2) Very good | (3) Acceptable | (4) Poor | (5) Very poor |
|---|---|---|---|---|---|
| 18. The overall T.V. presentation was: | 33 | 83 | 67 | 7 | 3 |
| 19. The understandability of the course was: | 42 | 77 | 73 | 0 | 3 |
| 20. Other course materials were: | 12 | 65 | 64 | 8 | 3 |
| 21. In general, the clarity of the picture during the programs was: | 44 | 98 | 44 | 3 | 6 |
| 22. In general, the quality of the sound was: | 41 | 92 | 42 | 7 | 9 |
| 23. The textbook was or notes were (if applicable): | 27 | 75 | 48 | 5 | 3 |
| 24. The classroom where my class was held was: | 27 | 69 | 90 | 7 | 1 |
| 25. Registration procedures were: | 24 | 73 | 71 | 13 | 3 |
| 26. Library service at your college for the course was: | 17 | 22 | 33 | 17 | 31 |

27. If other courses with this type of presentation (via T.V.) were made available to you, would you enrol again?
   1. 158 Yes
   2. 6 No
   3. 24 Undecided

   Comments _____

28. If yes, or undecided, what courses would you like to see offered in your location:

_____

_____

_____

29. During the T.V. presentations, how many times throughout the course did you ask questions or make comments through the interactive audio or telephone system:
   1. 102 Not at all
   2. 74 1-5 times
   3. 10 6-10 times
   4. 7 more than 10 times

30. If you had been in a regular classroom would you have asked questions more often?
   1. 118 Yes
   2. 72 No

31. Was the time of day for your course convenient for you? 1. 159 Yes 2. 34 No

   If no, comment _____

_____

32. Please use the space below to give us your comments about the value of the program, the use of television instruction, the presentation, or any other aspect of the course. If there were laboratory sessions connected with your course include specific comments regarding these sessions.

_____

_____

_____

_____

_____

Return to: E. Riches,
C.E.I.S.

BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY
Burnaby, B. C.

# ANIK-B EVALUATION

NUMERICAL ANALYSES

## QUESTIONNAIRE 4

Evaluation for all persons involved in the planning, implementation and operation of the project. Your replies will be used in statistical summaries only.

(Check ONE reply for each question - that reply which is most appropriate)

1. Location 1. 5 B.C.I.T. 2. 14 Other, specify _____

2. In what field is your major occupational activity?
   1. 5 College Administration
   2. 2 B.C.I.T. Administration
   3. 3 College Teaching
   4. 3 B.C.I.T. Teaching
   5. 1 College Technical or Support Staff
   6. 0 B.C.I.T. Technical or Support Staff
   7. 3 Other, specify _____

3. What is your position in the Anik B project:
   1. 3 Administration (B.C.I.T.)
   2. 8 Administration (other locations)
   3. 0 Technical and Support Staff (B.C.I.T.)
   4. 3 Technical and Support Staff (other)
   5. 1 Industry or Government Consultant or liaison
   6. 4 B.C.I.T. Instructor for Anik B
   7. 0 Other, specify _____

4. How many weeks have you spent working on the Anik B project? _____

5. What portion of your regular working time was spent on the Anik B project over the period of time you were involved in the project?
   1. 11 Less than 25%
   2. 4 25 - 49%
   3. 1 50 - 74%
   4. 3 75 - 100%

6. Approximately how many hours over and above your regular working time did you spend on the project?
   1. 8 Less than 20 hours
   2. 2 20 - 39
   3. 3 40 - 59
   4. 4 60 or over, if over how much _____

7. How many persons reported directly to you for this project? Number _____

TO UNDERSTAND YOUR SATISFACTION WITH VARIOUS ASPECTS OF THE ANIK B PROJECT, PLEASE INDICATE YOUR FEELINGS/PERCEPTIONS BY CIRCLING ONE ONLY, OF THE RANGE OF NUMBERS 1, 2, 3, 4, OR 5.

8. How adequate was the length of time available for preparation?

| 1. more than adequate | 2. | 3. | 4. | 5. inadequate |
|---|---|---|---|---|
| Comments | 2 | 4 | 4 | 8 |

9. How adequately did you feel the project was organized at B.C.I.T.?

| 1. more than adequate | 2. | 3. | 4. | 5. inadequate |
|---|---|---|---|---|
| Comments | 2 | 4 | 7 | 2 | 3 |

10. How adequately did you feel the project was organized at your College?

| 1. more than adequate | 2. | 3. | 4. | 5. inadequate |
|---|---|---|---|---|
| Comments | 1 | 6 | 3 | 0 | 4 |

11. How clear to you were the objectives of this project?

| 1. very clear | 2. | 3. | 4. | 5. unclear |
|---|---|---|---|---|
| Comments | 9 | 5 | 2 | 0 | 2 |

12. How clear to you were your role and your duties?

| 1. very clear | 2. | 3. | 4. | 5. unclear |
|---|---|---|---|---|
| Comments | 7 | 8 | 1 | 2 | 0 |



over

13. Did you feel that you knew what was going on?
1. all of the time 2. 3. 4. 5. none of the time
Comments 0 11 4 2 1

14. How easy was it for you to get information or expertise when necessary?
1. very easy 2. 3. 4. 5. difficult
Comments 2 8 6 2 1

15. How did you find the general cooperation of the persons directly involved in the project at your site?
1. very good 2. 3. 4. 5. poor
Comments 6 7 4 0 0

16. How did you find the general cooperation of the persons directly involved in the project at B.C.I.T.?
1. very good 2. 3. 4. 5. poor
Comments 9 6 3 0 0

17. How easy was it for you to get cooperation or help from others who were not directly associated with the project?
1. very easy 2. 3. 4. 5. difficult
Comments 3 4 5 3 0

18. How well did you feel conflicts were resolved?
1. very well 2. 3. 4. 5. not well
Comments 2 5 7 1 0

19. How adequate did you feel was the supply of staff to carry out the project?
1. more than adequate 2. 3. 4. 5. inadequate
Comments 0 4 3 4 7

20. How adequate was the equipment used for this project at your site?
1. more than adequate 2. 3. 4. 5. inadequate
Comments 3 4 5 4 2

21. How would you rate your personal satisfaction with the project?
1. very satisfied 2. 3. 4. 5. dissatisfied
Comments 4 5 7 1 2

22. How much would you like to be involved in similar projects again?
1. very much 2. 3. 4. 5. not at all
Comments 11 3 2 8 5

DID YOU AT ANY TIME FEEL IT WAS DIFFICULT TO PROCEED BECAUSE OF ANY OF THE FOLLOWING. CHECK AS MANY AS APPLY.

23. 3 Lack of authority.
24. 12 Lack of assistance with problems.
25. 2 Lack of assistance with decisions.
26. 2 Lack of guideposts and check points.
27. 3 Lack of feedback.
28. 3 Feeling isolated.

Comments _____

29. What would you yourself do differently if asked to work again on a similar project?

30. General Comments. _____

Return to: E. Riches,
C.E.I.S.

BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY
Burnaby, B. C.

ANIK-B EVALUATION

PROPORTIONAL ANALYSIS (PERCENT)

## QUESTIONNAIRE 2 - OVERALL COURSE EVALUATION BY STUDENTS

(Check ONE reply for each question - that reply which is most appropriate)

1. Location

| | | | |
|---|---|---|---|
| 1. 17.6 | B.C.I.T. | 8. 3.3 | Prince George |
| 2. 10.3 | Port Alberni | 9. 19.3 | Mackenzie |
| 3. 0.5 | Gold River | 10. 0.5 | Dawson Creek |
| 4. 2.9 | Cranbrook | 11. 10.3 | Fort St. John |
| 5. 19.3 | Terrace | 12. 0.0 | Fort Nelson |
| 6. 0.0 | Prince Rupert | 13. 0.5 | Other, specify _____ |
| 7. 10.3 | Whitehorse | | |

2. Course _____

3. Age
1. 3.2 -19
2. 11.8 20 - 24
3. 17.2 25 - 29
4. 37.1 30 - 39
5. 30.6 40+

4. Sex
1. 53.5 Male
2. 46.5 Female

5. Educational Level (Check ONE)
1. 0.0 Some elementary
2. 4.0 Elementary completed
3. 5.0 Some high School
4. 18.8 High school completed
5. 17.3 Some university, college or BCIT
6. 5.9 Some vocational or commercial training
7. 47.5 Degree or diploma
8. 1.5 Other, specify _____

6. Usual Occupation (Check ONE)
1. 4.1 Student
2. 71.9 Working, full time
3. 10.8 Working, part time
4. 7.7 Homemaker
5. 0.0 Unemployed
6. 5.6 Other, specify _____

7. If working, or usually working, give specific type of work _____

Please (✓) the most appropriate reply to the following questions:

| | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|
| 8. How much do you feel you would have liked face to face contact with the instructor? | Very much | Somewhat | Neutral | Not very much | Not at all |
| | 25.4 | 28.9 | 40.8 | 2.0 | 3.0 |
| 9. How difficult would it be for you to get this information/course in any other way? | Very difficult | Moderately difficult | A little difficult | Not very difficult | Not at all difficult |
| | 45.0 | 26.2 | 10.9 | 10.4 | 7.4 |
| 10. Considering the method of course delivery and its effect on learning, how effective do you feel IITV is compared with regular classroom learning? | Very effective | Moderately effective | A little effective | Not very effective | Not at all effective |
| | 27.1 | 54.7 | 14.6 | 3.6 | 0.0 |
| 11. Compared with correspondence course learning? | Very effective | Moderately effective | A little effective | Not very effective | Not at all effective |
| | 67.8 | 23.0 | 8.7 | 0.5 | 0.0 |
| 12. How well did the programs hold your interest? | All the time | Most of the time | Some of the time | Not very often | Not at all |
| | 25.0 | 54.0 | 16.0 | 4.0 | 1.0 |
| 13. How often did you feel you needed tutoring or counselling prior to and during the course? | All the time | Most of the time | Some of the time | Not very often | Not at all |
| | 0.0 | 5.8 | 27.2 | 40.8 | 26.2 |
| 14. How accessible has tutoring been, when needed, in connection with your course? | Very accessible | Fairly accessible | Somewhat accessible | Not very accessible | Not at all |
| | 13.5 | 18.4 | 11.0 | 16.6 | 40.5 |
| 15. How often was there participation from all viewing centres? | All the time | Most of the time | Some of the time | Not very often | Not at all |
| | 5.4 | 20.0 | 37.8 | 33.0 | 3.8 |
| 16. How much more help/ interest would you have liked from the college through which you registered? | Very much | Quite a lot | Some | Not very much | None at all |
| | 2.7 | 11.5 | 33.0 | 30.8 | 22.0 |
| 17. How adequate was the equipment used for this project at your site? | More than adequate | Fairly adequate | Somewhat adequate | Not very adequate | Inadequate |
| | 29.9 | 62.0 | 4.8 | 2.1 | 1.1 |

QUESTIONNAIRE 2

- Page 2 -

PROPORTIONAL ANALYSIS (PERCENT)

| | (1) Excellent | (2) Very good | (3) Acceptable | (4) Poor | (5) Very poor |
|---|---|---|---|---|---|
| 18. The overall T.V. presentation was: | 17.1 | 43.0 | 34.7 | 3.6 | 1.6 |
| 19. The understandability of the course was: | 21.5 | 39.5 | 37.4 | 0.0 | 1.5 |
| 20. Other course materials were: | 7.9 | 42.8 | 42.1 | 5.3 | 2.0 |
| 21. In general, the clarity of the picture during the programs was: | 22.6 | 50.3 | 22.6 | 1.5 | 3.1 |
| 22. In general, the quality of the sound was: | 21.5 | 48.2 | 22.0 | 3.7 | 4.7 |
| 23. The textbook was or notes were (if applicable): | 17.1 | 47.5 | 30.4 | 3.2 | 1.9 |
| 24. The classroom where my class was held was: | 13.9 | 35.6 | 46.4 | 3.6 | 0.5 |
| 25. Registration procedures were: | 13.0 | 39.7 | 38.6 | 7.1 | 1.6 |
| 26. Library service at your college for the course was: | 14.2 | 18.3 | 21.5 | 14.2 | 25.8 |

27. If other courses with this type of presentation (via T.V.) were made available to you, would you enrol again?

1. 84.0 Yes
2. 3.2 No
3. 12.8 Undecided

Comments _____

28. If yes, or undecided, what courses would you like to see offered in your location:

_____

_____

_____

29. During the T.V. presentations, how many times throughout the course did you ask questions or make comments through the interactive audio or telephone system:

1. 52.8 Not at all
2. 28.3 1-5 times
3. 5.2 6-10 times
4. 3.6 more than 10 times

30. If you had been in a regular classroom would you have asked questions more often?

1. 62.1 Yes
2. 37.9 No

31. Was the time of day for your course convenient for you? 1. 82.4 Yes 2. 17.6 No

If no, comment _____

_____

32. Please use the space below to give us your comments about the value of the program, the use of television instruction, the presentation, or any other aspect of the course. If there were laboratory sessions connected with your course include specific comments regarding these sessions.

_____

_____

_____

_____

_____

Return to: E. Riches,
C.E.I.S.

BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY
Burnaby, B. C.

# ANIK-B EVALUATION
## QUESTIONNAIRE 4

PROPORTIONAL ANALYSIS
(PERCENT)

Evaluation for all persons involved in the planning, implementation and operation of the project. Your replies will be used in statistical summaries only.

(Check ONE reply for each question - that reply which is most appropriate)

1. Location 1. 26.3 B.C.I.T. 2. 73.7 Other, specify _____

2. In what field is your major occupational activity?
   1. 29.4 College Administration
   2. 11.8 B.C.I.T. Administration
   3. 17.6 College Teaching
   4. 17.6 B.C.I.T. Teaching
   5. 5.9 College Technical or Support Staff
   6. 0.0 B.C.I.T. Technical or Support Staff
   7. 17.6 Other, specify _____

3. What is your position in the Anik B project:
   1. 15.8 Administration (B.C.I.T.)
   2. 42.1 Administration (other locations)
   3. 0.0 Technical and Support Staff (B.C.I.T.)
   4. 15.8 Technical and Support Staff (other)
   5. 5.3 Industry or Government Consultant or liaison
   6. 21.1 B.C.I.T. Instructor for Anik B
   7. 0.0 Other, specify _____

4. How many weeks have you spent working on the Anik B project? _____

5. What portion of your regular working time was spent on the Anik B project over the period of time you were involved in the project?
   1. 57.9 Less than 25%
   2. 21.1 25 - 49%
   3. 5.3 50 - 74%
   4. 15.8 75 - 100%

6. Approximately how many hours over and above your regular working time did you spend on the project?
   1. 47.1 Less than 20 hours
   2. 11.8 20 - 39
   3. 17.6 40 - 59
   4. 23.5 60 or over, if over how much _____

7. How many persons reported directly to you for this project? Number _____

TO UNDERSTAND YOUR SATISFACTION WITH VARIOUS ASPECTS OF THE ANIK B PROJECT, PLEASE INDICATE YOUR FEELINGS/PERCEPTIONS BY CIRCLING ONE ONLY, OF THE RANGE OF NUMBERS 1, 2, 3, 4, OR 5.

8. How adequate was the length of time available for preparation?

| 1. more than adequate | 2. | 3. | 4. | 5. inadequate |
|---|---|---|---|---|
| Comments 0.0 | 11.1 | 22.2 | 22.2 | 44.4 |

9. How adequately did you feel the project was organized at B.C.I.T.?

| 1. more than adequate | 2. | 3. | 4. | 5. inadequate |
|---|---|---|---|---|
| Comments 11.1 | 22.2 | 38.9 | 11.1 | 16.7 |

10. How adequately did you feel the project was organized at your College?

| 1. more than adequate | 2. | 3. | 4. | 5. inadequate |
|---|---|---|---|---|
| Comments 7.1 | 42.9 | 21.4 | 0.0 | 28.6 |

11. How clear to you were the objectives of this project?

| 1. very clear | 2. | 3. | 4. | 5. unclear |
|---|---|---|---|---|
| Comments 50.0 | 27.8 | 11.1 | 0.0 | 11.1 |

12. How clear to you were your role and your duties?

| 1. very clear | 2. | 3. | 4. | 5. unclear |
|---|---|---|---|---|
| Comments 38.9 | 44.4 | 5.6 | 11.1 | 0.0 |

QUESTIONNAIRE 4
- Page 2 -

PROPORTIONAL ANALYSIS
(PERCENT)

13. Did you feel that you knew what was going on?
1. all of the time 2. 3. 4. 5. none of the time
Comments 0.0 | 61.1 | 22.2 | 11.1 | 5.6

14. How easy was it for you to get information or expertise when necessary?
1. very easy 2. 3. 4. 5. difficult
Comments 10.5 | 42.1 | 31.6 | 10.5 | 5.3

15. How did you find the general cooperation of the persons directly involved in the project at your site?
1. very good 2. 3. 4. 5. poor
Comments 35.3 | 41.2 | 23.5 | 0.0 | 0.0

16. How did you find the general cooperation of the persons directly involved in the project at B.C.I.T.?
1. very good 2. 3. 4. 5. poor
Comments 50.0 | 33.3 | 16.7 | 0.0 | 0.0

17. How easy was it for you to get cooperation or help from others who were not directly associated with the project?
1. very easy 2. 3. 4. 5. difficult
Comments 20.0 | 26.7 | 33.3 | 20.0 | 0.0

18. How well did you feel conflicts were resolved?
1. very well 2. 3. 4. 5. not well
Comments 13.3 | 33.3 | 46.7 | 6.7 | 0.0

19. How adequate did you feel was the supply of staff to carry out the project?
1. more than adequate 2. 3. 4. 5. inadequate
Comments 0.0 | 22.2 | 16.7 | 22.2 | 38.9

20. How adequate was the equipment used for this project at your site?
1. more than adequate 2. 3. 4. 5. inadequate
Comments 16.7 | 22.2 | 27.8 | 22.2 | 11.1

21. How would you rate your personal satisfaction with the project?
1. very satisfied 2. 3. 4. 5. dissatisfied
Comments 21.1 | 26.3 | 36.8 | 5.3 | 10.5

22. How much would you like to be involved in similar projects again?
1. very much 2. 3. 4. 5. not at all
Comments 61.1 | 16.7 | 11.1 | 11.1 | 0.0

DID YOU AT ANY TIME FEEL IT WAS DIFFICULT TO PROCEED BECAUSE OF ANY OF THE FOLLOWING. CHECK AS MANY AS APPLY.

23. 20.0 Lack of authority.
24. 20.0 Lack of assistance with problems.
25. 13.3 Lack of assistance with decisions.
26. 14.3 Lack of guideposts and check points.
27. 20.0 Lack of feedback.
28. 20.0 Feeling isolated.

Comments _____

29. What would you yourself do differently if asked to work again on a similar project?

30. General Comments. _____



79.11.26

Appendix 4

# Summaries of Equipment Trouble Log

EQUIPMENT TROUBLE LOG
SUMMARIES - TERM 2.

| | | |
|---|---|---|
| B.C.I.T. | Jan. 21 | - No equipment trouble. |
| | Jan. 28 | - No equipment trouble. |
| | Feb. 4 | - No equipment trouble. |
| | Feb. 18 | - No equipment trouble. |

| | |
|---|---|
| Feb 18-22 | No Problems |
| Feb 25-29 | No Problems |
| Mar 3-7 | No Problems |
| Mar 10-14 | No Problems |
| Mar 24-28 | No Problems |
| Mar 17-21 | Transmitter down at 13:20 Back at 13:55 - repair request - Bill McConnell |
| Apr 7-11 | Transmitter down twice for 1 minute Apr 8 16:30 & 19:30 McConnel & Bolzon restored in 1 minute |
| | Transmitter down for 1 minute Apr 10 - 19:30 McConnel & Bolzon restored in 1 minute |
| | Transmitter down twice for 1 minute - 16:00 & 16:25 McConnell & Bolzon restored in 1 minute |
| Mar 31-Apr 4 | Transmitter down Mar 31 16:30 M & B restored 19:00 |
| | Telephones down at 19:00 Mar 31 - restored at 19:25 |
| | Transmitter down for 1 minute 15:30, M & B restored within 1 minute. |

| | | | |
|---|---|---|---|
| PORT ALBERNI | Jan. 14 | - | No equipment trouble. |
| | Jan. 21 | - | No equipment trouble. |
| | Jan. 28 | - | No equipment trouble. |
| | Feb. 4 | - | No equipment trouble. |
| | Feb. 11 | - | No equipment trouble. |
| | Feb. 18 | - | (Feb. 19, 2:00pm) Not transmitting telephone conversation. Informed BCIT. Ottawa phoned site 2:30pm. Flipped power off, then back to Rec./Transmit and were able to function again. |

| | |
|---|---|
| March 16th | No Problems. |
| March 23rd | Breakdown Wed. Mar 25 Phones not functioning Reported to BCIT and Ottawa March 25, Fixed March 27th by DOC Vancouver. |
| March 30 | No Problems |
| April 7th | No Problems |
| April 14th | Apr 16 Evening - reported to BCIT & Ottawa evening Conversations with Ottawa from Wed 16th Apr. on April 18th DOC men fialed to fix, Not fixed Apr. 21st |

| | | | |
|---|---|---|---|
| TERRACE | Jan. 7 | - | Electrohome which had earlier exhibited colour bleed, now began to show intense yellow hues on paper and faces of people. Then turned purple. No problems with middle TV although paper used apparently was yellow but appeared white on screen. |
| | Jan. 14 | - | Requested time re colour bleeding. Inpedance switches not in proper order. Operator unaware of their existence. Even better video reception obtained by adjusting nut inside modulator, labelled 'pre-set video'. Operator also unaware of this capability. The one set retained purple hue and showed little, if any response to dial being rotated. |
| | Jan. 21 | - | No equipment trouble. |
| | Jan. 30 | - | Dish full of dry snow. Before sweeping it was observed that audio and video on the tube were fine. Db was off the scale - $100^{+}$. Wet snow seems to be problem, not dry. |
| | Jan. 31 | - | Comments by BCIT operator that our transmit capability not working temporarily at beginning of evening. |
| | Feb. 1 | - | Transmitting capability switched on and off with pilot lock light most of afternoon. Video began to fade slightly, but never became a problem. With loss of pilot lock, transmit would disappear. Occurred intermittently throughout afternoon. Cleared by tapping the IF Pilot Receiver box near light. |
| | Feb. 6 | - | Call from Ottawa (10:30am) re no pilot lock on system. Attempted repairs (tapping side of box) worked only briefly. Arrangements made for substituting of the IF Pilot Receiver. |

| | | |
|---|---|---|
| TERRACE | Feb. 6 | - Evening feedback came from phones and TV's, but system is totally muted. High pitched squealing from other centres caused person at that centre to cease talking. Feedback quit about halfway through class. |
| | Feb. 8 | - Pilot Receiver replaced. Attempts were made to parallel a recorder onto the system from the TV's. Unsuccessful so far. |
| | Feb. 11 | - By recording from TV's, the audio was lost due to muting. Advised to hook into system before it goes to muting box. This attempted through receiver/amplifier shelf but audio did not come through. Eventually discovered audio broadcast only on Channel 1. Arrangements made with D.O.C. to broadcast simultaneously on Channel 1 and 3 when we wanted to tape. |
| | Feb. 18 | - Taping off the amplifier shelf still did not work this week. Broadcasting not done simultaneously, and had not split the audio here. D.O.C. agreed to always put out audio on Channels 1, 2, and 3. |
| | Feb. 27 | - Ottawa advised output low, and may need new amplifier soon. |
| | Feb. 28 | - No transmit capability. Directions given to open vent in back of outside equipment, and turn up RF gain. Both were already done, so told to wait for repair person. |
| | Feb. 29 | - Told DOC had been advised of our problem and would contact us soon. |

---

TERRACE

| | |
|---|---|
| March 3 | Contacted March 3rd re repaires needed - Bill Shrimpton arrived March 4th. Upconverter TWT unit (exterior) replaced. Half-hour "repair" time. which could in future, be easily effected by local (regional) personnel, if replacement units available. |
| March 10 | No problems apparent - but dB reading down to 32 on March 14 and 28 on March 15. |
| March 17 | dB now up to 82 (Mar 17) On March 19, the dB reading was down to 29, and we lost our pilot lock the evening of the 19th Anatomy & Physiology class. Remedied from the Terrace site the next day by increasing RF again.<br>dB reading on March 20th was 84 |
| March 24 | No problems with IITV system but our VTR equipment will not record from Anik.<br>Advised by BCIT (through Ottawa) to keep equipment on receive only when not in use to minimize wear on same. |
| March 31 | No Problems |
| April 7 | No Problems |
| April 14 | No Problems |
| April 20 | No problems |
| April 28 | No Problems |
| May 4 | No Problems |
| May 11 | No Problems |

| | | |
|---|---|---|
| DAWSON CREEK | Jan. 14 | - No equipment trouble. |
| | Jan. 17 | - T.V. broke down. Rptd. in aftn. No wire sent up by Loomis. Arrived Jan. 21. Attached new wire Jan. 23. Someone had snipped off wire leading from main outlet to T.V. |
| | Jan. 21 | - No equipment trouble. |
| | Jan. 28 | - No equipment trouble. |
| | Feb. 4 | - No equipment trouble. |
| | Feb. 25 | - No equipment trouble. |
| | Mar. 3 | - No equipment trouble. |
| | Mar. 10 | - No equipment trouble. |

| | | |
|---|---|---|
| FORT ST. JOHN | Feb. 12 | - (9:20-9:22pm) Receiver. Reception broke and came on again with no adjustment. No repairs done. |
| | Feb. 18 | - No equipment trouble. |
| | Feb. 25 | - No equipment trouble. |
| | Mar. 2 | - No equipment trouble. |
| | Mar. 10 | - No equipment trouble. |

| | | |
|---|---|---|
| MACKENZIE | Mar. 10 | - Still being disturbed by buzz over audio when camera shots switched from close-up to long distance. Visual very clear. Ottawa says possibly need new set. |
| | Mar. 17 | - Still experiencing buzz. No other problems. |
| | Mar. 21 | - Still have buzz when camera change. 1:40pm called BCIT. Adjustments made with equipment here and signal level at BCIT which cleared our problem, however may disrupt other centres' reception. |
| | Mar. 24 | - Testing equipment again. |

| | |
|---|---|
| Apr 7-11 | 10 April 1 p.m. Could get no reading on signal level meter - no picture- lots of noise.<br><br>Adjusted screw affair beside AGE switch - good picture but static buzz on noise level. |
| Apr 14 - Apr 18 | Good Audio and Good Video all week |
| April 21- Apr 25 | Good audio and Visual |

| | |
|---|---|
| April 28- May 2 | Good audio & Visual |
| May 5-9 | Good audio and good visual |
| May 12-May 16 | Good audio & good video |
| May 19-May 23 | Good audio & good video |

| | | | |
|---|---|---|---|
| WHITEHORSE | Jan. 17 | - | (7:00pm-8:30pm) Yukon electric failure. 8:30pm-10:00pm program okay. |
| | Jan. 21 | - | No equipment trouble. |
| | Jan. 30 | - | (7:10pm) White telephones not working. Instruction received from BCIT. TIUVCU (beige box) behind, unplug data jack, speak on beige phone. 7:50pm telephones in working order. |
| | Jan. 31 | - | (7:00pm-10:00pm) Voice of instructor only, fuzzy and unclear. Telephone voices from other centres okay. (8:15pm) Rptd. to BCIT over system. |
| | Feb. 8 | - | No equipment trouble. |
| | Feb. 13 | - | (7:00pm) No green light, no meter reading. Rptd. 7:05pm. Good reception by 7:48pm. |
| | Feb. 18 | - | No equipment trouble. |
| | Mar. 7 | - | No equipment trouble. |
| | Mar. 14 | - | No equipment trouble. |
| | Mar. 19 | - | (2:30pm) Telephones - no communication. Rptd. to BCIT. Repaired by 4:00pm. |
| | Mar. 21 | - | (1:05pm) Telephones. Repair request 1:10pm. |
| | Apr 8-11 | - | No Problems |

| | |
|---|---|
| April 17 | Between 8 & 9 Transmission ceased for approx 3-4 minutes<br>9:25 Transmission interrupted for approximately 3 minutes |
| Apr 25/80 | No trouble |
| May 2/80 | NO trouble. |
| May 9, 1980 | 12:30 p.m. Telephones - no tranmission , Ottawa contacted us - Carrier down. |
| May 16/80 | Still no transmission, Ottawa informed May 9/80<br>Transmitter left Ottawa May 12, arrived in Whitehorse May 20/80 - now installed and back to normal operation. |
| May 23/80 | No trouble |
| May 30/80 | No trouble |

Appendix 5

## Suggestions For Future Courses

## Nursing and other Health Courses

### Suggestions for Future Courses

| | |
|---|---|
| Alcohol Effects In "Boom Towns" | 1 |
| Anatomy | 6 |
| Biochemistry | 1 |
| Counselling | 3 |
| Disease (Entities, Process & Treatment) | 3 |
| ECG's (Interpretation & Application | 1 |
| Emergency Procedures | 1 |
| Fluid & Electrolyte Balance | 1 |
| Geriatrics | 1 |
| Histology | 1 |
| Intensive Care Unit | 2 |
| Lab work & Microbiology | 5 |
| Management Skills | 1 |
| Maternity | 1 |
| Medical & Surgical Review | 2 |
| Neurophysiology | 1 |
| Nursing-Upgrade, related, Credit courses | 11 |
| Nutrition | 1 |
| Obstetrics | 7 |
| Operation of New Equipment in Hospital | 1 |
| Operating Room Procedures | 2 |
| Pathology and Pathological Physiology | 5 |
| Paediatrics | 1 |
| Pharmacology | 7 |
| Physical Assessments | 1 |
| Preventative Health Care | 1 |
| Psychiatry & Psych. Nursing | 15 |
| Psychology | 5 |
| Public Health | 1 |
| Radiography | 1 |
| Surgical Procedures & Review | 4 |

## Other Anik B Courses

### Suggestions for Future Courses

| | | | |
|---|---|---|---|
| Administration | 1 | Law for Lay people | 2 |
| Advanced Geology | 5 | Logging | 1 |
| Advanced Mining | 1 | Market Evaluation | 1 |
| Advanced Surveying | 4 | Math Advanced | 2 |
| Astronomy & Astrophysics | 2 | Math Review | 3 |
| | | Motivation | 1 |
| Bridge & Road Maintenance | 3 | Negotiating Technique | 1 |
| Building Practices (6 courses) | 3 | Organizational Behaviour | 1 |
| Calculus | 1 | Outdoor Recreation | 2 |
| Child Psychology | 1 | Plumbing/Wiring | 1 |
| Civil Engineering | 2 | Public Relations | 1 |
| Communications | 1 | Renewable Resource Management | 1 |
| Computer (Applications, Program, Hwy Tech.) | 3 | Sociology | 1 |
| Construction Methods (Highways, Roads) | 10 | Structures | 3 |
| Drafting | 2 | | |
| Drainage | 1 | | |
| Electronics | 1 | | |
| First Aid | 1 | | |
| Forestry | 3 | | |

Appendix 6

Some Suggestions For
IITV Instructors

## SOME SUGGESTIONS FOR I.I.T.V. INSTRUCTORS

A course outline prepared long before registration would assist students in assessing whether the course is suitable for them. Also in first handout there should be a list of session titles.

Let students know if there will be a text and approximate cost.

Take into account students' backgrounds in subject.

Have handouts ready on time, and in sufficient numbers and of good quality print.

Make sure that students learn to use equipment correctly before beginning of class.

Try to use visual aids - and try to make assignments interesting and challenging.

Make sure material is up to date.

When you ask students a question, give them enough time to phone in with answers.

Be accurate in time allowed for breaks.

Try to avoid using certain colours on overhead, as they do not show up well. e.g. orange-red, blue.

Sometimes part of a page is not visible on overhead camera. Make sure pages are placed carefully.

Try not to read from handouts or books - students can do this on their own.

If you are going to use the boards, make sure boards and brushes are clean - this helps to ensure that the writing on the board is readable.

Make sure that writing for overhead camera is not too small.

Start presentation on time.

Try not to make presentation too hurried.

White shirts seem to leave a 'burned out' image on screen.

Some students would like to see material from labs, field trips, etc., and Outside students would also like to see B.C.I.T. students on camera once in awhile.

INSTRUCTORS

Know your students. Insist on class lists and call in students by name - try to lessen the impersonal quality of the class.

Persist in getting input from your receiving centre students.

Don't expect students to do a lot of writing - written material should be sent to them.

Arrive with pre-prepared charts and diagrams - don't waste valuable time.

Include professionally prepared films and documentaries that have been tested for the medium.

Don't forget, students consider the success of the course to be the responsibility of the instructor.

Don't forget that assignments are good feedback for the student and for yourself.

Students have suggested a 15 - 20 minute presentation - then a break for questions, so that the program does not become disjointed.

Don't use ballpoint pens - felt tip of dark colour clearer.

If you cannot answer a question - find out and report next time - don't ignore it.

One instructor stated that all instructors should be required to take the Industry Services course "Instructional Techniques". The same instructor recommended use of video tapes as feedback.

Consider "modularizing" your course. This is recommended by students and instructors.

Some quotes from student remarks regarding the two most popular instructors.

"Excellent instructor praise from everywhere, no long preamble on first night - straight into course, everything from stirring 'theme music' and 'theme' quote to fast use of overhead camera, doesn't talk to us like a bunch of dummies, every answer sincere and individually directed, instructor comfortable with questions, enunciation slow and clear, limited use of 'jargon', and a sense of humour."

Eleanor Riches
80.06.06

MAJOR FINDINGS OF A SURVEY WHICH MAY VERY WELL BE APPLICABLE TO FUTURE USERS OF I.I.T.V. AT B.C.I.T. (FROM A REVIEW OF SATELLITE PROJECTS BY J. FITZPATRICK)1

1. SUFFICIENT PLANNING TIME TO ASSESS NEEDS, ESTABLISH LINKAGES AND PRODUCE QUALITY COURSEWARE.

2. IMPORTANCE OF AGENCY COOPERATION AND SUPPORT FROM APPROPRIATE INSTITUTIONS.

3. HIGH QUALITY PROGRAMS WHICH MEET THE NEEDS OF TARGET AUDIENCE AS WELL AS HIGH QUALITY RECEPTION.

4. IN EDUCATION AREA TO CAPTIVE AUDIENCES, PROVIDE "CARROT" COURSE CREDIT.

5. INTERACTION CAPABILITY SHOULD BE USEFULLY EMPLOYED - MATCH NEEDS WITH TECHNOLOGY.

6. USE MORE THAN ONE FORMAT - LIBRARY MODE WAS WELL RECEIVED, IS COST EFFECTIVE, AND DOES NOT INVOLVE SCHEDULING PROBLEMS. (REPLY AT USERS CONVENIENCE)

7. CONFERENCING HAS BEEN FOUND TO BE AN EFFECTIVE USE OF I.I.T.V.

1. Fitzpatrick, J. The Use of Satellite Technology in Education: An Evaluation Perspective. State University of New York at Albany. A paper presented at the annual meeting of the American Educational Research Association, San Francisco, April, 1979.

# Appendix 2

## Notes
## Anik-B IITV Evaluation Meeting
## May 15, 1980 At BCIT

NOTES

ANIK-B IITV EVALUATION MEETING

80.05.15 at B.C.I.T.

Attached is a list of names and institutions of individuals who were in attendance. Many of the participants in the IITV Anik-B Project submitted evaluations as resource documents to this meeting. There are 11 such resource documents listed in Appendix I. One resource document from Continuing Legal Education Society of B.C. was received at the end of the meeting and is attached to these Notes.

The meeting began by circulating additional resource documents to each participant and with an introduction of participants.

Anik-B IITV Objectives

There was a review of the objectives of the Anik-B Pilot Project IITV which are included in the B.C.I.T. evaluation, pages (ii) and (iii). It was noted that the original project objective had been modified, shifting away from the use of regularly scheduled courses, classes, instructors; to courses with the potential to serve a greater number of students through:

(a) professional upgrading courses
(b) Continuing Education courses

There was discussion about this shift with consensus indicating the need and desire for credit courses. Suggestions for courses ranged from health upgrading programs, digital electronics to third and fourth year university. The discussions centered on a need for a comprehensive set of course offerings and programs relating to specific student career needs.

The need for a quality system to plan courses and programs with sufficient lead time was identified as most critical. Also discussed was the question of student group size with respect to using the Anik-B Satellite in that large groups of students in a specific geographical location can be taught by Community Colleges.

Project Continuation

With reference to the B.C.I.T. Evaluation Report summary section, pages (iv) through (vii), the following were raised with respect to recommendation No. 1 that "the Anik-B Pilot Project contine and be expanded". Consensus indicated there is a need for an immediate commitment to:

(a) a length of time during which planning can occur and resources can be allocated such as two, three, four, or five years

(b) a high level follow through by the Ministry of Education and by the Department of Communications to the project

Anik-B Classrooms

It was identified that assistance is required to make the IITV system work both in the sending classroom through technical support and teaching support staff, and in the receiving classrooms in the form of tutors, facilitators, and/or group leaders as required for a specific learning activity. The concept of creating conditions such that the instructor's classroom conceptually includes all of the students participating in the course (including all receiving centers) is a most desirable goal. Suggestions about T.V. camera locations, television set locations relative to seating arrangements, and methods of student to student, and question of the need for television sets in the sending classroom except for viewing diagrams and/or graphic material was questioned. It was

agreed that the experiences with various room arrangements would be shared and to that end, each institution with a receiving or transmitting classroom will send to Brian Gillespie a copy of all classroom configurations they have tried and any future classroom arrangements they would wish to attempt.

Technical Aspects

It appeared that many of the initial technical problems had been resolved. It was, however, noted that the following situations have existed:

(1) D.O.C. does not quickly respond to servicing the system and this is viewed as a poor attitude in some cases.

(2) Prince George was down 27 days due to D.O.C. insistence on their servicing the equipment and not having it serviced by local individuals.

(3) Non-interactive centers need more than one land line to be effective.

Future Project Objectives

There was consensus that the objectives of future IITV projects need to be well defined and communicated to all. In particular, the need for a central organization to address questions of project objectives, tuition fees, assignment and articulation of responsibilities between sending and receiving centers, information sharing, needs assessments and comparing the results with that of the short term market demand were identified. Both the sending and receiving centers felt a need to be part of such a central organization. This organization would provide the structure and stability to develop comprehensive courses and programs.

Allocation of Facilities & Resources

It was pointed out that B.C.I.T. or any other group does not automatically have first priority on the Anik-B classroom in a specific college. Due to a shortage of space, agreements on classroom utilization are needed with individual colleges well in advance of course offerings.

It was pointed out that many of the colleges needed and took steps to ensure a minimum quality in the programs through IITV offered at their institution. This has resulted in the colleges writing off related costs.

Most institutions' experience was that the Anik-B IITV co-ordination eventually came to be the responsibility of an individual with continuing education or adult education management skills. It appears that the skills to run a continuing education program overlap those required by IITV.

"The courier service" is one aspect that needs to be constantly reviewed and evaluated to ensure it is operating effectively.

Co-ordination

Most colleges felt the Friday afternoon meetings via Anik-B between B.C.I.T. and the Community Colleges providing the opportunity to discuss the project were useful and should be continued. It was felt in future that all participants in the Anik-B Project should take part in coordination meetings which should be regularly scheduled with sufficient lead time.

## Conclusion

It was noted that the project has been a success. Many of the points raised reflect the enthusiasm and commitment of participants. Students in the receiving centers wish to continue taking IITV courses. The faculty have experienced many problems but generally would like to teach in the project again. The many comments made in the meeting were put forward in a positive and constructive vein with the intention that the ongoing growth of IITV will be realized by learning from current experience.

## University of Victoria Evaluation

Arlene Zuckernick reviewed the University of Victoria evaluation indicating that much of the previous discussion touched upon the recommendations in her report. In particular, reference was made to Recommendations 2 and 3 relating directly to administrative concerns and organization of how the project should be managed in the future. Discussion and consensus seemed to be reached on Recommendations 4, 6, 7, 8, and 9. Recommendation 10 relates to the question of classroom configuration and use of the IITV systems with respect to instructor/ student interaction and should be considered. Arlene described the University of Victoria teaching model employed in this project. Discussion ensued about various teaching models that were employed in the IITV Project and it was agreed that there was a need to share and develop a variety of teaching models that would be applicable on IITV.

It was also felt that while there was a need for a central structure to ensure future success, setups should be taken to retain flexibility in the functioning of program originators.

Specific mention was made of the need for proper communication between program originators and B.C.I.T. and the Community Colleges to ensure proper flow of information.

Maria Cioni of T.V. Ontario

Maria was present at the evaluation meeting and indicated to the group that in the future it would be possible to use Teledon for processing digital data; thus making available written and sound interpretation through the Satellite. She also indicated that a group called FOCUS, Forum of Canadian Users Satellite, was being established. Maria will send Brian Gillespie information on both of these and it will be forwarded to those in attendance.

It was suggested at this point that we had covered the majority of points included in the other evaluations. Therefore, a review of each evaluation was preceded by identifying new comments and concerns where further consensus could be reached.

East Kootenay College

Evaluation indicated that possible rearrangement of television sets in specific classroom configurations could result in a reduction in the number of required television sets. In Recommendation 4 (b) a reference to the level of student experience and background initiated a discussion and resulted in consensus that:

> the instructors need to receive information about students which includes past academic background, a profile of age and other experience, and objectives in taking the course. Related to this was the concern that detailed course information be available to students prior to registration to obtain proper student levels in courses. There were examples in Term 1 where students registered in a course misunderstanding the level and intent.

Further techniques should be made available to the instructor on how to introduce and begin a class on IITV. Also, there should be an orientation of the instructor to the communities into which the instructor is teaching. It was pointed out that several orientation, registration, and student profile methods had been attempted this year. In one case an Anatomy and Physiology instructor obtained pictures of each student and distributed them to the respective sites in an attempt to bring the provincial classroom "closer together" and make it more personal.

Ministry of Labour

Jack Robertson referred to Page 2 of his report and indicated that IITV needed to take on a more definite and focused form in the future by providing a policy with respect to what is to be broadcast and a supporting structure for those institutions transmitting programs. He commented that at present there is vagueness in the functioning of the project when one looks at it from the perspective of the user relating to B.C.I.T. which, in turn, relates to the Colleges. He felt two fundamental questions need to be answered:

(a) What programs/courses should be delivered by Anik-B?

(b) Who sets the priorities?

Gary Karlsen, Northwest Community College

He referred to his report and highlighted the following: We need to put the best over IITV. Justification should be provided for having the best instructors teaching on IITV. (Perhaps this is due to the amplification that television gives both good and poor qualities of instruction.) He further pointed out that IITV is a distance education system that has some inherent differences from regular classroom instruction.

He indicated there is a need to have better B.C.I.T./College interaction and communication.

It will be crucial in future years to have a proper needs assessment done so that appropriate programs and courses can be identified and that a policy on what courses are to be offered can be put into effect. Gary indicated that it was important that instructors on IITV have a high degree of sensitivity towards students and a training program be developed that would take into account the types of techniques instructors should use on Anik-B. In his evaluation such points are provided on Page 2 and 3.

Further, an operating model for receiving centers should be developed that has sufficient flexibility to meet local needs. This will help new receiving centers in the initial planning stages.

It was agreed there was enough data to run a full fledged IITV system. The current question is one of funding and priorities. Each of the Community Colleges stated a minimum level of support by the Ministry of Education to run IITV after June 1st is required.

Ministry of Highways

Jack Fredrickson indicated that it is essential for project coordinators and faculty to visit the sites receiving the programs. Referring to his recommendations, the following points were raised:

(a) The need for on-site coordinators/facilitators.

(b) The need to have outside agencies (such as Ministry of Highways) receive from a central coordinating agency (B.C.I.T. this year) advice, resources, and people to make the project run smoothly from the transmitting agency's point of view.

On Page 3 of his report is a chart outlining the various activities required of an outside user of the IITV system in putting on a course or program.

Yukon Vocational and Technical Training Centre

Steve Schaffer indicated the need to select the very best faculty to instruct on IITV. He indicated that many of the points raised previously were included in his evaluation. He did indicate, however, that a minimum level of pre-planning was required before courses began. He said that at least six weeks were required to receive booklets and a short course outline to permit the proper advertising of courses and programs. He also indicated it was never clear as to who was to assume responsibility for advertising the program.

On a technical level he indicated they had had to replace four transmitters due to technical failure. He had students expressing concern about having to pay for phone calls (long distance!) due to the arrangements at Whitehorse.

Steve further emphasized a list of courses requested by people in the Yukon which are contained in his report.

Concepts of Television Education

John Tayless indicated that B.C. needs to adapt IITV to its needs. He questioned if the Tager model was appropriate. He stated that there was perhaps more future in such concepts as Teledon and instructional T.V. It was agreed that the best that is available should be provided within the limitation of budget and known technology. It was agreed that cost factors would limit the interface between instruction and the medium of IITV.

Instructional Techniques

Patrick Thomas stated that the technology is definitely there but there is a question as to how far it can be adapted with respect to instruction. He wondered how changes could be accomplished.

Northern Lights

As time ran out, Northern Lights indicated their evaluation covered many of the topics previously discussed. They wanted to emphasize the need for special facilities that afforded the students a proper learning environment, even to the point of ensuring that coffee would be available to those who travel long distances.

Ministry of Education

Ron Faris of the Ministry of Education wrapped up the discussion by saying that Continuing Education in the Ministry is involved in distance education in which it views IITV as a part. He indicated that the Ministry may focus on this meeting's report and the evaluations submitted to date. He felt the task at hand was to legitimize IITV as a sub-system within education that will be recognized in terms of delivery and financing. He suggested that the summary of today's meeting and specific objectives be developed that included planning, organizing, staffing, coordinating, evaluating, and budgeting.

It was agreed the Chairman would send out Notes of this meeting and that specific recommendations would be made up and submitted as part of a covering memo to the series of reports. It was suggested that the recommendations be stated as reflecting an outcome from discussions held today.

With the possibility of an announcement shortly of continuation of the project by the Ministries of Education and Communications, it was left

to the Chairman to decide on how to evaluate further the educational effectiveness of the project. It was, however, suggested, that if a meeting is held it be for two days to permit sub-groups to review specific topics. It was further suggested that timing be arranged to permit individuals to participate not only in the evaluation but in any related development and planning workshops.

Helen Resnick of the Continuing Legal Education Society of British Columbia joined the meeting and indicated in a brief that there are requests by many groups of lawyers in the province to expand Anik into additional areas.


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APPENDIX

List of Individual Evaluations Submitted to
Evaluation Meeting of 80.05.15

(1) B.C.I.T. - Anik-B Pilot Project Interim Evaluation

(2) University of Victoria - Some Comments on the role of the Satellite Manager - Arlene Zuckernick

(3) East Kootenay - Evaluation of Anik-B - J.C. Selby

(4) Ministry of Labour - Evaluation of the Administration of the Anik-B Project - Jack Robertson

(5) Northwest Community College - Anik-B IITV Project - Gary Karlsen

(6) Ministry of Transportation, Communications, and Highways - Project Management - Anik-B - Jack Fredrickson

(7) Yukon Vocational and Technical Training Centre - Anik-B Evaluation, May 1980 - Steve Schaffer

(8) U.B.C. Faculty of Education - Anik-B, News Media Forum - Angus M. Gunn

(9) Northern Lights College - Evaluation of Anik-B

(10) Continuing Legal Education Society of B.C. - Comments and Evaluation Anik-B IITV - Helen Resnick

(11) U.B.C. - Centre for Continuing Education - Vince Battistelli

Attendance at IITV Anik-B Meeting

80.05.15

| Name | Institution |
|---|---|
| B. Gillespie | B.C.I.T. |
| L. Sanderson | B.C.I.T. |
| R.C. Mason | B.C.I.T. |
| Joan Cooper | B.C.I.T. |
| David Hudson | North Island College, Gold River |
| John Tayless | North Island College, Comox |
| Gary Karlsen | Northwest Community College |
| Bill Robertson | B.C.I.T. Distance Education |
| Robert Nason | B.C.I.T. - Anik-B IITV Project |
| Judy Becker | EKCC - Cranbrook |
| Joe Selby | EKCC - Cranbrook |
| Stuart A. Berry | CNC, Manager, Audio Visual Services |
| D.E. Snider | CNC - B.C.I.T. Liaison Rep |
| Jack Robertson | Ministry of Labour |
| Maria Cioni | OECA, 2180 Yonge St., Toronto T.V. Ontario |
| Arlene Zuckernick | University of Victoria |
| Karen Erben-Begg (sp) | Northern Lights College, Fort St. John |
| Ron Faris | Ministry of Education |
| Patrick Thomas | B.C.I.T. Staff Society |
| S. Bishop | NLC - Dawson Creek |
| Henry Arthur | B.C.I.T. |
| Pat Semeniuk | B.C.I.T. |
| Eleanor Riches | B.C.I.T. |
| Steve Schaffer | Whitehorse |
| Wally (W.N.) Quarry | Ministry of Transportation & Highways |
| Jack Fredrickson | Ministry of Transportation & Highways |
| Angus M. Gunn | Field Development, Faculty of Education, U.B.C. |
| Michael Plumb | ACCESS, Alberta |

# Appendix 3

## Evaluation Report From
## Northwest Community College

# ANIK-B
# INTERACTIVE INSTRUCTIONAL
# TELEVISION PROJECT

## EVALUATION REPORT, APRIL 1980

Submitted by:

Gary Karlsen
Distance Education Coordinator
Northwest Community College

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2: Semester 2, Terrace . . . . . .164

3: Prince Rupert . . . . . .168

G. Costs

Appendix 4: Operating Costs September 1979 to June 1980 . .171

There seems little doubt that from the point of view of the northern resident interactive instructional television is a viable alternative to actually "being there". There seems also to be little doubt that from the point of view of the northern educator (qua local IITV facilitator) "being here" means settling for nothing less than the best of what the southern schools have to offer. The Anik-B project has been very useful in helping us to articulate these interests based on our experiences over the past 8 months.

Some of the form and content of distance education which this experiment has offered during the two semesters could be further developed as a potential ancillary operation of the community college. Some of the programs and methods delivered by Anik-B would seem to be unsuitable. This report provides a description of the kinds of features an interactive instructional television system should have if it is to be worthwhile for the Northwest.

From the point of view of Northwest Community College the application of satellite-delivered interactive instructional television should be based on two major premises:

1. The technology should be utilized to provide access to learning that is unavailable locally.

2. The system is by definition, distance education, and therefore, appropriate teaching and learning methods should be utilized.

A. COURSES

From our experience we know that the most successful courses were those which have been programmed, well structured, and aimed at adults who are seeking continuing professional education.

Pre-programmed courses simply refers to those which are planned and prepared well enough in advance of start dates so that the college can manage them effectively. Emphasis must be placed on shared responsibilities between the send and receive institutions. For example, if the college is to help with the offering of another school's course, then the originating institution should expect to meet certain local needs with respect to course promotion, scheduling, registration procedures, and so on.

It should be noted that in IITV we are dealing with distance education, not conventional classroom instruction. Courses should be well structured to provide as much instructional support for the student as possible, since he/she has comparatively less access to the teacher than a regular classroom student would have. Most Anik-B courses have been taught using the talking heads/course handouts format with occasional dialogue between teacher and student. For the most part, mere electronic communication has been substituted for actual teaching. For distance learning these two activities must become more inter-connected and mutually reinforcing.

Continuing professional education would appear to be most appropriate for this system for at least three reasons:

(a) There is a real need for special upgrading and updating courses for working people in the Northwest. Many of these needs cannot be met locally and are too costly to obtain elsewhere.

(b) Our college offers a great variety of programs and courses locally. These should not be duplicated by IITV.

(c) Certain types of training programs cannot be offered effectively by instructional television methods.

B. INSTRUCTION

Some of the teaching during the project has been very good, but some has been embarrassingly poor. It has not been difficult to identify reasons for this variation. The most successful were those instructors who have been sensitive to the special learning problems that might be encountered by students at the receiving end of the transmissions. Those teachers took the time to adapt their conventional styles to new techniques required by distance education and IITV.

It cannot be stressed enough that any instructor who takes on the responsibility of teaching by IITV must accept the fact that students at the other end are disadvantaged by virtue of their isolation from him. His own sense of detachment and frustration can be another obstacle to the teaching and learning process. An open telephone line and an electronic image alone are hard technologies which do not become part of the educational environment until the teacher begins to manipulate them appropriately. There are several ways of doing this. Following are some suggestions for the instructor:

- Design the course well in advance, seeking the advice of IITV support personnel or others who have taught on the system.

- Provide college coordinators with all course details and course materials no later than three to four weeks prior to start date.

- Attend a compulsory practical television teaching workshop in which the instructor views a taped segment of his on-camera performance.

- Insist that any visual transfers be tested out for quality of reception before broadcast.

- Ensure that students are in possession of all course materials at least one week prior to the class for which they will be needed.

- At the beginning of each lesson, always do a site check/roll call so the students know you know they are there.

- Begin the course with a succinct introduction, stating your expectations of the students. Make use of advance organizers.

- Always use a class contact person whether a student as group leader or the college contact when addressing a class. Addressing an anonymous person is too impersonal.

- At the beginning of each session state precisely what handouts or other materials will be referred to in the lesson.

- Obtain a class list and call upon names, even if chosen randomly.

- Try to know something about the students in each location and if possible, adapt the course to their interests.

- Establish when you will accept calls from the students during the lesson.

- Leave a special time during or at the end of the session for 10 to 15 minutes for informal or special student questions.

- Avoid wasting valuable class/air time on unnecessary redundancy or monotonous repetitions - it is better to end the session early than to fill space.

- Involve the students in their own learning. For example, give them some assignments and have them report on something in class.

- Arouse and maintain the students' interest.

- Do not sit through the entire session - get up and use the blackboard, etc.

- Avoid lecturing only - make use of other teaching techniques.

- Always maintain continuity from session to session, perhaps starting each session with a brief summary of the previous one.

- If there is a class in the studio ensure that you do not focus your attention on it alone, or even mostly on this class.

- If there is a class in the studio be sure these students use their telephones when talking to you. If they do not, repeat their remarks for the colleges.

It should be noted that all educational institutions have their own standards of excellence which they strive to maintain. It is the nature of human organizations that they are often more critical of others than of themselves, and as a result, are less tolerant of other's shortcomings. It is all too easy to fall into the trap of quickly passing judgement based on situational performance. Performance on IITV - good or ill - is amplified, and judgement is always made at the receiving end. For reasons of academic integrity the quality of instruction on IITV should not be compromised for lack of pedagogical effort. It is bad enough that quality should be affected by financial constraints.

C. TECHNICAL

There is a certain duality of perspectives underlying the use of technology in technologically dependent systems. Either technology is ignored or simply taken for granted, or its users are so preoccupied with it that its intended purposes become distorted. Both conditions are not only illogical, they are unhealthy. We should always be exploiting technology for very clearly defined human ends. We should be asking how we can make the best use of this tool. Satellite-delivered IITV is not immune from the dangers of technological determinism.

With our IITV there has been evidence of both perspectives interfering with the objectives of the project. Some of the project administrators appear to have underplayed the importance of applying some very basic educational television principles in the studio operations. The "KISS" financial formula which denied the use of everything from proper lighting to skilled technicians has resulted in some of the worst educational television imaginable. It can be pretty distracting trying to learn from a ghosting television instructor with a receding hairline and a halo, sitting in the bottom left corner of the TV screen.

Some instructors may also be taking the technology of television teaching for granted. Simply sitting in front of a camera and talking - to the studio audience at that - is a poor excuse for both television and education. We are only too used to television as a passive medium which portrays an unreal world. But the stark reality of a talking head is often no more involving for our students at the receiving end than if they were looking through a window - they get the feeling that what's going on is not really for them.

Yet another technological problem, and one which is much more difficult to solve simply because it is harder to recognize, is the somewhat subliminal fascination with the technology itself. The "because it is the latest in highly sophisticated telecommunications gadgetry it must be good" phenomenon, threatens to send existing well tested and perhaps, more effective practices into early retirement. Forced obsolescence is very wasteful. When the educational effectiveness of IITV is evaluated, hopefully it will be measured against the effectiveness of other methods of distance education which are currently in use.

There are several specific technical problems that should be worked out if the effectiveness of IITV is to be improved. Some of those which overlap with instructional problems have been mentioned above under the area of instruction. The following additional items should be seriously considered:

- No transmission should be made unless standard practices of educational television production are followed. This is with respect to equipment and facilities, crew, and program design.

- All instructors and course developers should undergo a compulsory workshop or training exercise before the course goes on air.

- Telephones (a) At the interactive sites telephone usage often requires two hands - one to hold the handset, the other to depress the muting button. This prevents the student from writing and communicating with the instructor at the same time; and although this sounds like a simple operation it is sufficiently complex a variation on conventional telephone usage that some people prefer not to approach the phone at all. These factors obviously hinder interaction. The use of simple DAROME sets should be seriously considered.

  (b) At the receive-only sites, telephone usage requires dialling or punching in ten digits, then waiting for delayed switching. Some quicker system should be employed which would better facilitate interaction.

- Classroom space at the recieve site should be dedicated and designed specifically for television teaching, and should not be shared with regular teaching functions. Seating, lighting and scheduling conflicts present further obstacles to effective learning.

D. STAFF

Northwest Community College has experienced no real difficulty in working with administrative and other support staff at BCIT or the other program agencies with the exception of one problem - obtaining course information and materials in a reasonable period of time in advance

of start dates. BCIT project administrators can best identify reasons for this.

It seems to us at Northwest Community College pretty clear as to what staffing is required to operate an effective program at the college site: there should be a program coordinator and a classroom assistant. The responsibilities of the coordinator are generally administrative. This person should have some experience with, and a good understanding of distance education. The classroom assistant is a part-time person reporting directly to the coordinator. His/her time is given to the daily operation of the courses. The following list, although it is by no means exhaustive, outlines the assistant's general duties:

- Obtains all course information from originating institution and provides registration office with necessary details.

- Promotes courses using regular college advertising procedures.

- Arranges for required texts to be available through college bookstore and/or library.

- Prepares receive classroom for seating, television and other electronic equipment adjustments, telephone placement, etc.

- Maintains a snow and ice free dish during winter classes.

- Acts as college representative and off-air liaison between the students and their instructor and the originating institution.

- Provides each new class with an orientation to the system.

- Encourages student use of the telephones.

- Ensures that each class makes contact with instructor at the beginning of each session.

- Attends all classes where assistance is required by the students.

- Acts as a group or class leader when a student or other course associate does not act as one.

- Distributes course handouts and invigilates over examinations.

- Helps with field trips or other extra-sessional studies as required.

- Assists the students with technical problems related to the system and performs simple equipment maintenance operations under the supervision of a technical authority.

- Records or organizes recording of classes when required.

- Maintains appropriate logs and records all evaluation and other reporting data.

The classroom assistant should be regarded as a key component - and in practical terms - the human element in the effective delivery of instruction in IITV. His/her services will not always be needed by a class of students at all times, but they should be available when they are required.

IITV presents a unique educational situation, for the learner is really a student of both institutions. Because of this, both schools share the responsibility of instruction - each has its own part to play. Although the sender plays the major role, the receiver has an obligation to provide a reasonable facilitative and support service to its clients. Without the help of the classroom assistant the college would be offering little more than a roof over some heads. Our mandate requires us to do more than this for the people in our region.

E. ADMINISTRATION

At Northwest Community College the Anik-B project was administered by the Distance Education Coordinator. Almost one-third of his time was given to the project. The job of the classroom assistant was a newly created position. This job was equivalent to a half-time appointment.

There were several minor administrative problems encountered over the two semesters, but these were anticipated because of the uniqueness of the experiment. There were, however, two major administrative problems which made things extremely difficult, particularly as the program gained momentum in the second semester. From our point of view they should be resolved if IITV is to be effectively managed.

The first problem was a financial one. The need for staff has already been discussed above. The college received no direct support from the Ministry for operating costs. Monies had to be taken from other important program areas of the college which left them short. Trying to maintain a viable program without a budget was not only difficult, it was oftentimes embarrassing. The costs as shown in Appendix 4 reflect the minimal support we were able to give to the project.

It goes without saying that our performance was directly affected by our lack of budget. Virtually no course promotion was undertaken after January 31, 1980. The services of the classroom assistant were all but withdrawn from the students. A marginal operation was maintained for most of the second semester.

The second major problem was a programming one. Second semester programs seemed to come in the form of a grab-bag, or a smorgasbord for an insatiable appetite. Well over fifty program titles were offered between January and May by more than fifteen different program agencies! Clientele varied from the very general to the highly specific. Programs

varied in length from 1 to 54 hours. Student fees varied from zero to the outrageous. Program notification was equally inconsistent. It is an understatement to say that this peppering of programs was difficult to manage, especially given the status of our participation during this time. Once again, the need for pre-planning and pre-production cannot be stressed enough.

The experiment has been a valuable one. Much has been learned from it. There should now be sufficient documentation available to lay out the design elements of a full fledged interactive instructional television system for British Columbia. But if this is to be a really effective method of distance education the decision makers must acknowledge the need for some major changes in the design of the system as we have known it through the Anik-B project. This acknowledgment must appear in the form of a clear commitment to planning over a specified developmental period, with an equally strong commitment to provide special financial support to all of the participating institutions.

F. ENROLMENTS

| Program | Semester I Terrace | Start Date | Number of Sessions | Sponsor | Enrolment |
|---|---|---|---|---|---|
| Forest Utilization (*) | | Sept. 6 | 13 | B.C.I.T. | 2 - - 0 |
| Mining (*) | | 7 | 13 | B.C.I.T. | 0 |
| Reading & Study Skills | | 7 | 6 | B.C.I.T. | 14 |
| Reading & Study Skills | | Oct. 12 | 6 | B.C.I.T. | 0 |
| Reading & Study Skills | | Nov. 23 | 6 | B.C.I.T. | 0 |
| Hospitality & Tourism * (*) | | Oct. 1 | 10 | B.C.I.T. | 8 |
| Construction Admin. (*) | | Oct. 3 | 12 | B.C.I.T. | 3 - - 2 |
| Refresher Modules for Grad. Nurses * | | Oct. 4 | 11 | B.C.I.T. | 25 |
| Educational Admin. | | Oct. 4 | 11 | U. of Vic. | 12 |
| Concrete Technology (*) | | Oct. 12 | 15 | B.C.I.T./MOH | 5 |
| Survey in Metric (*) | | Oct. 15 | 15 | B.C.I.T./MOH | 17 |
| Geology & Soils (*) | | Oct. 19 | 7 | B.C.I.T./MOH | 5 |
| | | | | TOTAL | 88 |

* Evening Session

(*) Credit Courses

| Program | Semester II Terrace | Start Date | # Sessions | Sponsor | Enrolment |
|---|---|---|---|---|---|
| Technical Survey 1 Metric * (*) | | Jan. 7 | 15 | B.C.I.T./MOH | 5 |
| Mining * (*) | | 8 | 21 | B.C.I.T. | 0 |
| Geology & Soils * (*) | | 8 | 21 | B.C.I.T. | 5 |
| Mining Tutorial | | 11 | 8 | B.C.I.T. | 0 |
| Anatomy & Physiology Review * | | 16 | 10 | B.C.I.T. | 12 |
| Concrete Technology * (*) | | 17 | 8 | B.C.I.T. | 5 |
| National Bldg. Code * (*) | | 17 | 11 | B.C.I.T. | 3 |
| Teaching Reading in Primary Grades (*) | | 17 | 11 | U. of Vic. | 0 |
| Use of Schools in Comm. * | | 21 | 1 | ORC | 8 |
| Avalanche Control * | | 28 | 2 | B.C.I.T. | 21 |
| Media Forum | | 29 | 3 | UBC | 6 |
| Family Law * | | Feb. 12 | 3 | Continuing Legal Ed. Soc. | 11 |
| Early Childhood Ed. * | | 20 | 7 | North Isl. College | 0 |

| Program | Semester II<br>Terrace | Start Date | # Sessions | Sponsor | Enrolment |
|---|---|---|---|---|---|
| Public Meeting re Forest Act * | | Feb. 25 | 1 | Outdoor Rec. Council | 17 |
| Recreation Management * | | Mar. 3 | 5 | B.C.I.T./Rec. & Fitness Br. | 0 |
| Recreation for the Handicapped * | | 3 | 1 | B.C.I.T./Rec. & Fitness Br. | 0 |
| Focus on Childhood | | 3 | 12 | ACCESS | Alberta |
| Planet of Man | | 3 | 12 | ACCESS | Alberta |
| The Ascent of Man | | 3 | 12 | ACCESS | Alberta |
| Instructor's Diploma 104 | | 4 | 10 | UBC | 0 |
| Forestry Law * | | 4 | 3 | CLE | 13 |
| Finding My Own Way | | 4 | 12 | ACCESS | Alberta |
| Basic Horse Care | | 4 | 12 | ACCESS | Alberta |
| Recreation for the Handicapped * | | 5 | 1 | Rec. & Fitness Br. | 0 |
| Renewable Society | | 5 | 12 | ACCESS | Alberta |
| Olympic Profiles | | 5 | 12 | ACCESS | Alberta |

| Program Semester II Terrace | Start Date | # Sessions | Sponsor | Enrolment |
|---|---|---|---|---|
| The Age of Uncertainty | Mar. 5 | 12 | ACCESS | Alberta |
| Automotives 12 | 6 | 12 | ACCESS | Alberta |
| Classics Dark and Dangerous | 6 | 12 | ACCESS | Alberta |
| Adventures in History | 7 | 12 | ACCESS | Alberta |
| Family & the Law | 7 | 12 | ACCESS | Alberta |
| Genetics | 13 | 5 | B.C.I.T. | 0 |
| UBC Open House Lectures | 14 | 10 | B.C.I.T./UBC | 5 |
| Trail Designation & Access * | 24 | 1 | ORC | 7 |
| Foreclosure Actions * | 25 | 2 | CLE | 2 |
| Playground Leadership * | Apr. 7 | 6 | B.C.I.T./Rec. & Fitness Branch | 0 |
| Estates * | 8 | 3 | CLE | 1 |
| Continuing Pharmacy Ed. * | 9 | 3 | UBC | 9 |
| Fire Service Seminars * | 10 | 3 | Fire Commissioner's Office | 10 |

| Program | Semester II Terrace | Start Date | # Sessions | Sponsor | Enrolment |
|---|---|---|---|---|---|
| Alcohol Abuse * | | Apr. 17 | 5 | B.C.I.T. | 0 |
| Property Transactions * | | 29 | 1 | CLE | |
| Public Administration | | May. 1 | 2 | U. of Vic. | |
| Riverfest Conference * | | 5 | 1 | ORC | |
| Company Law * | | 6 | 1 | CLE | |
| Building Code Workshop * | | 8 | 3 | B.C.I.T. | |
| Real Property * | | 13 | 1 | CLE | |
| Conveyancing * | | 13 | 1 | BCRA | |
| Constitutional Law * | | 20 | 1 | CLE | |
| Contract Law * | | 20 | 1 | BCRA | |
| Family Law * | | 27 | 1 | CLE | |
| Taxation | | 27 | 1 | BCRA | |
| Ntl. Bldg. Code Course Eval. * | | | | B.C.I.T. | |
| TOTAL ENROLMENT AS OF APRIL 17, 1980 | | | | | 140 |

| Program | Prince Rupert | Start Date | No. of Sessions | Enrolment |
|---|---|---|---|---|
| SEMESTER I | | | | |
| Hospitality & Tourism | | Oct. 1 | 11 | 3 |
| Refresher Modules for Grad Nurses | | 4 | 11 | 23 |
| SEMESTER II | | | | |
| Anatomy & Physiology | | Jan. 16 | 10 | 5 |
| National Bldg. Code | | 17 | 11 | 3 |
| Avalanche Control | | 28 | 2 | 24 |
| Family Law | | Feb. 12 | 3 | 7 |
| Public Meeting re Forest Act | | 25 | 1 | 2 |
| Recreation for the Handicapped | | Mar. 3 | 1 | 5 |
| Forestry Law | | 4 | 3 | 8 |
| Trail Designation & Access | | 24 | 1 | 4 |
| Estates | | Apr. 8 | 3 | 3 |

| Program | Prince Rupert | Start Date | No. of Sessions | Enrolment |
|---|---|---|---|---|
| Continuing Pharmacy Education | | Apr. 9 | 3 | 2 |
| Fire Service Seminars | | 10 | 3 | 9 |
| TOTAL ENROLMENT AS OF APRIL 10, 1980 | | | | 98 |

| Program | Prince Rupert | Start Date | No. of Sessions | Enrolment |
|---|---|---|---|---|
| Continuing Pharmacy Education | | Apr. 9 | 3 | 2 |
| Fire Service Seminars | | 10 | 3 | 9 |
| TOTAL ENROLMENT AS OF APRIL 10, 1980 | | | | 98 |

## G. COSTS



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APPENDIX 4

NORTHWEST COMMUNITY COLLEGE

ANIK-B PROJECT

OPERATING COSTS

September 1979 to June 1980

| | | |
|---|---|---|
| A. | Salaries (all part time) | |
| | Project Coordinator | 7,166.01 |
| | Terrace Assistant | 8,212.62 |
| | Prince Rupert Coordinator | 2,643.25 |
| | 2 Prince Rupert Assistants @ 360.36 | 720.72 |
| | Total Salaries | 18,742.60 |
| B. | Travel (Project Coordinator) | 700.00 |
| C. | Photocopying | 684.00 |
| D. | Telephone long distance: Burnaby, Ottawa, Prince Rupert | 500.00 |
| E. | Postage and Courier | 100.00 |
| | Total Operating Costs | 20,726.00 |

G. KARLSEN

80-04-16



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# Appendix 4

## Evaluation Report: University Of Victoria

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*University Extension*

SUMMARY REPORT

# TOWARDS A MODEL FOR SATELLITE-BASED INSTRUCTION AT THE UNIVERSITY OF VICTORIA

Report on the ANIK-B Experimental Project
September 1979 to June, 1980

Submitted by:
Arlene Zuckernick
ANIK-B Project Coordinator
Division of University Extension
June, 1980

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## THE NATURE OF THE DOCUMENT

The Government of B.C. sponsored a series of experiments in distance education via the ANIK-B satellite during the 1979-80 academic year. The Division of Extension, University of Victoria had undertaken to develop, produce and evaluate two satellite-based credit courses in the Faculty of Education during this experimental period. The purpose of this document is to report on this experimental project; highlighting in detail those aspects that may serve as components of a model for a similar, possibly extended effort, in the coming years. This report will incorporate the pertinent data obtained during the formal evaluation of the University of Victoria ANIK-B project. The evaluation is necessarily of a formative nature. No attempt is made to make the findings generalizable to satellite-based courses outside the University of Victoria context. To summarize, the specific objectives of this report are:

(1) to comment on the strengths and weaknesses of the satellite-based instructional system at the specific levels of administration and operation in distance delivery of University programs.

(2) to assess the success of the two Education courses from the participants' viewpoint.

(3) to provide some measures of the cost-effectiveness of the experimental program within the University of Victoria.

(4) to assess the technical viability of operating the satellite-based instructional system at UVIC.

(5) to make recommendations regarding the role of the Satellite Manager during the experimental period and in the future.

### A. Introduction and Course Descriptions

The project operated from its outset with severe time and logistical restrictions.

The first course (Fall 1979) selected for a satellite-based delivery system was ED-B 435 "Supervision of Instruction".

The second course (Winter 1980) was ED-B 480 "Teaching Reading in the Primary Grades".

These initial course selections were made on the basis of Education Extension's strong interest in the delivery mode, the Course Instructor's personal availability and enthusiasm, and some informal feedback from the field that the content would be of use and generate a receptive student group in a short period of time.

B. Outline of the Model

The ad hoc model that evolved will be outlines under the following headings: The Project Team, Course Components, The Course Design Procedures, Field Arrangements, University of Victoria Project Administration.

C. The Project Team

1. Project Director/Cochairmen

1.1. Fall 1979 - Project Director with overall responsibility of academic component of the first course, ED-B 435. Dr. Yvonne Martin coordinated the course content, instructed in two sessions, provided links between classes and developed, administered and marked student assignments. Dr. Martin was given 3 units release time for her participation.

1.2. Winter 1980 - Cochairmen - Drs. Lloyd Ollila and Terry Johnson had overall responsibility for the academic component of the second course, ED-B 480. Their joint responsibilities were similar to Dr. Martin's.

2. Project Coordinator with direct responsibility for all aspects of the project excluding course content, specifically:

- Instructional design and administration on day-to-day basis.
- Coordination of University Extension participation.
- Preseminar production as required (e.g. videotapes) and production of on-air TV component.
- Liaison with academic staff and other internal and external individuals/committees re: satellite.
- Overall evaluation of project.

3. Support Staff

3.1. Curriculum Assistant: To assist the Project Director with course content matters.

3.2 Research/Media Assistant: To assist as required the above project team in all aspects related to both course content and delivery system.

3.3. Clerk/Typist: as required by Project Coordinator.

4. Field Associates: One individual in each centre had been commissioned as a Field Associate and has the following responsibilities:

- Attend all sessions of the course
- Maintain the comfort and effectiveness of the on-site classroom.
- Perform all on-site administrative functions including registration, attendance, administration of evaluation instruments under auspices of project coordinators, receipt and distribution of all support materials, and informing students of scheduling changes.
- Stimulate post-broadcast discussions.
- Lead pre/post session discussions.
- Maintain contact with the Project Coordinator.
- Conduct evaluation.

D. Course Components

The central course component was the 75 minute weekly TV seminar, supported by specially designed print materials and pre and post-session activities and discussion facilitated by the Field Associate.

1. TV Seminar: The weekly live seminar provided the core of the course. A unique characteristic distinguishing it from other telecourses was its interactive nature - with one way video and two way audio. The students could see and hear the instructor and could respond immediately through the satellite-based telephone link-up.

2. Print and Other Materials: The students were provided with a variety of support materials:

2.1. Course Print Materials - materials produced by instructors and recorded into a distance education framework by a academics and Project Coordinator in her role as Instructional Design Consultant. These were packaged into binder form to provide maximum flexibility.

2.2. Required Readings were also included in the binder.

2.3. Reproduction of all substantive graphics to be broadcast during the TV Seminar were included in the binder (to eliminate wasteful copying time and effort)

2.4. Supplementary Print and Small Format Media Materials were circulated among the group by the Field Associate.

2.5. Textbook and Study Guide - The winter 1980 course included a required textbook and study guide.

3. Pre and Post Session Activities:

3.1. The Pre-Session activities were generally of an administrative nature.

3.2. Post Session activities were related to the content of the seminar, facilitated by the Field Associate, having been provided with detailed instructions by the weekly lecturer. They included discussions, structured activities and small-format media presentations and discussion of text and study guide.

4. Non-broadcast sessions: Additional sessions were held as necessary under the direction of the Field Associates. During these sessions, exams were administered and further discussions of a post-session nature ensued.

E. Field Arrangements:

Instructional sessions were held every Thursday from October 4th through December 6th and January 17 through March 18, 1980 starting at 3:20 p.m. Pacific Time. Each session included instruction and discussion centered at the British Columbia Institute of Technology and broadcast live over the ANIK-B satellite between 3:30 and 4:45 p.m. (PST) to six centres, specifically;

1. Northern Lights College - Dawson Creek
2. North West Regional College - Terrace
3. New Caledonia College - Prince George
4. North Island College - Port Alberni, Gold River
5. East Kootenay College - Cranbrook

Students from an extensive feeder area (in some cases up to 100 kms away) convened at their respective colleges from 3:15 p.m. to 5:45 p.m. Pacific Time each Thursday.

F. University of Victoria Project Administration

The Director of Education Extension, Dr. R. Pearce, maintained overall responsibility for the budget. The Project Director/Co-chairmen (Course Authors) were directly responsible for the academic input of the course, whereas the Project Coordinator administered all other aspects, including the day-to-day operation. Given the severe time restrictions under which the course development took place, the reporting mechanism was fairly informal in nature. Most decision-making was done verbally in face-to-face meeting situations.

G. Student Evaluation:

Evaluation of student work in the course was based on attendance, participation and the successful completion of a selection of assignments, generally practical in nature, given by instructors. In the fall course, the Academic Director, in conjunction with instructors, reviewed anecdotal comments on student activities submitted by field associates and examples of student work to determine grades. In the winter course, two formal examinations were administered. Grading for the courses was on a regular basis. Grades awarded were A, B, C, D, F, and N. Upon successful completion of the course, students received 1½ units of credit which could be approved as an elective on an education degree programme. With approval from the Faculty of Education, this credit could be applied towards a Masters programme.

## PART TWO - EVALUATION PROCEDURES AND RESULTS

### A. Evaluation Procedures

As stated previously, the evaluation was entirely of a formative nature; its goal to provide information for developing an operational model. All participants provided written and oral data, both of an anecdotal nature and in more structured forms. (see Appendix E) The principal written evaluation instruments consisted of:

A. Student pre and Post Tests (E1-4)
B. Weekly Field Associate Checklist (E5)
C. Weekly Instructor Checklist (E6)
D. Project Coordinator Log (E7)

In addition, informal interviews on a person-to-person basis were conducted with the Project Team, the Field Associates and Instructors. The Directors of Education Extension and University Extension provided useful data. The Field Associates also participated in debriefing sessions.

### B. Students' Profile

#### 1. ED-B 435 - "Supervision of Instruction" (Fall 1979)

There were 54 students registered in this course (excluding the large Cranbrook auditing block).* Of these slightly fewer than half are teachers,with the rest evenly divided between principals and other support personnel, for the most part consultants and administrators. Two-thirds of all practitioners are from the Elementary level, with the remaining third from secondary schools. Slightly less than half of the teachers and principals have been teaching for under two years, one quarter 3 - 5 years, and the remainder over 6 years.

The school size varied considerably from five teachers to 110, with the median of 19 teachers per school. The supervisory time also spanned a wide range from 5 hours per month to 100% of the time. The median was 35 hours per month.

Two-thirds of the students indicated they are currently enrolled in a degree program. They are fairly evenly distributed by sex. A majority are in the 31 - 40 years age range.

A majority of the students had not taken any related courses previously. Only half had done some reading in the subject prior to enrolling in the courses but over 80% stated that the relevance supervisory function to their present responsibilities was high. Nor had they ever taken any courses (academic or other) that had been taught other than in the traditional face-to-face situation.

2. "Teaching Reading in the Primary Grades" (Winter 1980)

There were 44 students who completed the pretest for this course. The course enrollment subsequently increased to 53, of which 70% were taking the course for credit. One-quarter had been enrolled in the Fall course. Almost all the students are practising teachers, mostly in their thirties. In this course, women outnumbered men two to one. Over 1/3 had been teaching two or less years and almost two-thirds of them are involved in the primary grades. The remaining practitioners are intermediate teachers.

Excluding those who were registered in the fall course, only 20% of the students had been previously involved in a non-traditional teaching/learning situation. In addition, most of them had no previous personal experience with A/V media.

It is interesting to note that a significant group of the students (41%) indicated that they had a "slightly negative" attitude towards speaking on the telephone.

C. Evaluation Results

1. Overall Ratings

Given the nature and purpose of this study, the evaluation results from the two courses will be reported by topic together. Whenever important differences are visible, these of course, will be noted.

No attempt is made to interpret these results in Part Two.

From the students' point of view the two courses were definitely successful in reaching their respective stated objectives (as outlines in the first session) and in the print materials. Over 85% of them, in each case, indicated a rating of 5 or 4 on a five point scale.

A large majority of the students (ED-B 435 - 87.5%; and ED-B 480 87.0%) also indicated that the courses were successful in meeting their own personal objectives. Further indications of the overall favorable reaction was the student response to the following statements:

1. I would consider taking another course from UVIC via satellite.
2. I would suggest to a colleague that she/he take such a course.

Almost all respondents (over 90% in all cases) replied in the affirmative to these queries.

2. On the Course Components

Both "Supervision" and "Reading" were rated highly on student attentiveness and instructional quality in comparison to the traditional face-to-face teaching/learning situation. However, from the students' point of view, the audio interaction between instructor and students was clearly unfavorable compared to a traditional course (on a 5 point scale). This is particularly evident in the "Reading" course.

Over half of all students thought the Print Materials, in a similar comparison, were 'better' or 'much better', with most of the remainder of the opinion that they were at least of equal quality. Complimenting this positive quality rating, the Print Materials were perceived as quite useful. More than three-quarters of all students in both courses gave them a 5 or 4 on a five point scale.

Furthermore, other major instructional components (pre and post-session assignments and discussions, text,supplementary readings/study guide and student assignments) were equally well-received. Not one of these 6 major components was rated less than 3 or above on a five

point scale by 75% of the respondents (with the single exception of the Supervision student assignment which was given a 67% favorable rating).

The TV Seminar as the core of the instruction design model achieved a favorable response. As noted above, the attention level was quite high. Its quality was in general also rated positively by the student in both courses. (the quality of the still graphics from the course to the second was perceived as markedly improved by the students) as was their frequency.

The other major aspect of the instructional model was the Field Associate. The students felt these facilitators (see role description on pg. 2) were crucial to the course, as is indicated in the following table. This is particularly striking in the "Reading" course.

The responses from the Field Associates, as indicated in their weekly checklists and verbally, was also favorable. They perceived their role, both in its administrative and instructional functions, as useful and rewarding.

All but one of the ten expressed a desire (entirely unprompted) to be involved in the future.

One of the major features of these courses was the participation of a number of different instructors. The students were asked what their preference would be in this aspect, if such a course were repeated. Almost all the students were of the mind that at least two or three different instructors would be preferable.

3. Student Participation

The reaction to the level and type of student verbal input was mixed. As noted previously, the audio interaction between instructor and student was rated unfavorable in comparison to a face-to-face course.

One-third of the "Supervision" students and one-fifth of their "Reading" counterparts stated that they did not speak to the instructor at all.

Only the "Reading" students were queried as to whether they felt there was sufficient interaction between instructor and students. A majority (56%) were of the opinion that there was "Too Little", whereas one-third of the remainder chose "The Right Amount". The others were undecided.

There is a dramatic difference in the individual students' verbal input to the post-session discussion. Over three-quarters of the students for both courses stated that they participated in this discussion either "quite frequently" or "a number of times".

In fact, the students thought highly of the value of the respective courses in their professional development as supervisors and/or teachers.

4. Other Instructional Aspects

There was general agreement by the students, given the requirement of 39 contact hours for a 1½ unit credit course, that each session was the right length. Most of the others felt each in class session was too short.

There was mixed reaction by the students to the out of class time required. The "Reading" students on average were spending 3 - 4 hours per week on homework. In contrast, the "Supervision" students were spending an average 2 hours of preparation time. Therefore, over 90% of the latter group were of the opinion that the workload was reasonable for a 4th year 1½ credit university course, whereas the former group were divided - 40% were in agreement, while 56% felt there was too much work.

The largely positive attitude "towards television as an instructional tool" expressed in the pretest increased somewhat in the post-test (from 70% to 87%) on the part of the "supervision" students and remained quite constant by the "reading" students. The favorable opinion of ANIK-B satellite as the delivery system was fairly constant in the latter (at 80% choosing "an excellent idea" or "has positive applications"). This measure rose from over 80% to over 90% in the former group of students.

5. Student Evaluation

The ED-B 435 students were assigned a major paper as the principal component of their mark. The ED-B 480 had a midterm quiz, final examination and a term paper to complete.

Both Dr. Martin and Dr. Ollila expressed the opinion that the ANIK students did at least as well as their on-campus counter-parts in regard to marks.

6. Technical Aspects

The College receiving sites varied widely in their physical set-up. However, there was very little feeling on the part of the students that this had any effect on the instructional quality, with over 90% of them noting that the rooms were "adequate as a classroom."

There was a total of 20 on-air sessions during the 2 courses. Five centres were involved in each course, giving a total of 100 possible video and audio interuptions. In fact, the video was lost (for more than 2 minutes) three separate times (to one centre only on each occassion), for a total of 3%. The audio was interupted (in one form or another) on 10 separate occasions with one or more of the centres for a total of 10% of the time.

## PART THREE - RECOMMENDATIONS

The recommendations advanced below are partially derived from the evaluation data analysis and partially from the experience of developing and conducting the experimental project of two University-level satellite-based courses, as described in some detail in this Project Report.

The recommendations are categorized into the following subtopics:

A. General Remarks
B. On the Course Components
C. On the Management and Delivery
D. On the Technical Aspects

There is no attempt to make these recommendations exhaustive or to present only those which might be taken as the consenus view of all members of both Project Teams.

### A. General Remarks

1. Notwithstanding this disclaimer, there appears to be consenus by all levels of participants, both at the University of Victoria and in the field, on the overall effectiveness and viability of the model of the satellite-based instruction as developed and implemented by the Project Teams during the 1979-80 ANIK-B experimental period. It is therefore recommended that the core elements of the model be implemented (with the suggested amendments and required course-specific adjustments) for upcoming University of Victoria satellite-based credit courses. The basic components of the model would also seem to have application in the non-credit program area.

2. It appears to be in the cognitive domain that the most positive learner outcomes are centered. Therefore, it is recommended that the course considered for satellite-based instruction have a high ratio of cognitive skills to be taught. In addition, although there can be little doubt that the instructional medium would also be quite effective in the affective domain, the level of performance required may be outside the range of a majority of instructors.

3. The workload of the key personnel will of necessity vary with

planning time available, complexity of course material presentation, field centres to be served, support staff, among many other valuables. As it stands now, the following guidelines may be recommended:

- Instructor - for a 1½ unit course allow 1 - 3 units release
  - for a 3 unit course allow 4 units release
- Instructional Designer/Producer
  - for a 1½ unit course allow 3 - 4 days/week
  - for a 3 unit course allow 4 - 5 days/week

4. It is difficult to make many potentially accurate statements regarding the budgeting of satellite-based courses; since it is dependent on too many course-related factors, even apart from the expenses incurred in travelling to the British Columbia Institute of Technology weekly. Both the severe time constraints and the developmental costs had a major impact on the final overall cost of this experimental program. No final figure is available at this time. It appears, on initial assessment that the per student cost in dollars for the experimental period will be higher than for a traditional off-campus course. The revenue, of course, is generated solely from student tuition fees. At present, the off-campus student is charged the same fee as the campus student. It is recommended that this amount be reassessed in light of the special benefit off-campus credit students receive, especially in respect to interactive satellite. Consideration should also be given to recovering 100% of the support material production and distribution cost --- a principle not able to be put force during the experimental period. (Since this amount could not be accurately determined at course commencement when the student material fees must be assessed.)

5. The number of students will obviously vary considerably from course to course and field centre to field centre. However, the following guidelines are recommended (assuming the present instructional model):

- The minimum number of students per centre should be 3; the maximum 20.
- The minimum number of centres served per course should be 3, the maximum 6 or 7.
- In a credit course, at least 3 students or 40%, whichever is greater, should be registered for credit.

6. Sufficient lead-time must be allowed to develop the best possible course and permit the requisite amount of field preparation, instructor orientation and print and non-print materials development. The minimum time required in selection of course and personnel is three full months prior to the first on-air transmission. Again, it should be emphasized that more than one course could be planned during this time period without extending the required lead-time to any degree.

7. Special attention must be given to advertising the courses available in the field with sufficient lead-time and to obtain maximum effectiveness in reaching the target audiences.

B. On the Course Components

1. The basic course components, as described in some detail in Part One are:

- A weekly TV seminar via satellite
- Print and Other Support Materials
- Required Readings (and possibly Text)
- Non-Broadcast Sessions.

The evaluation indicated that, by and large the composition of and balance between these basic components resulted in successful courses. Therefore, the continuation as outlined of these basic elements is recommended with the following adjustments.

. The TV Seminar portion might be expanded to one and half hours weekly and over 12 weeks for a 1½ unit credit course for a total of 18 hours on-air interactive seminars.

That at least 50% of the pretaped materials be "in the can" prior to the first TV Seminar.

Since it is clearly a different teaching/learning situation from the traditional face-to-face, a substantial amount of instructor approach is acceptable if:

a. Some sort of screening procedure is adopted
b. All instructors take part in orientation sessions including in-depth discussion with the instructional design personnel and a practise session and debriefing.
c. Consideration should be given to developing a manual on satellite based teaching for instructors.

Up to ten minutes of flexible instructional time should be built into each TV Seminar in order to encourage spontaneity by instructor and student alike.

2. The interaction between instructor and students was on of the strengths of the instructional model. Therefore,, some structured interaction should be built into each TV seminar. It is suggested that such interaction can take the following form:

- Off-air exercises with feedback from each centre (10-15 mins)
- Instructor initiated questions directed to a specific centre and/or student.
- Student- initiated questions and comments
- Student-to-student interaction

3. Since the print materials proved to be functional in content and format, each satellite course should have substantial student materials included. It is recommended that:

- The session Outlines be blocked out somewhat differently
- The students should not receive a time breakdown of the TV Seminar. This will increase instructor flexibility and lessen preceived anxiety. (The project team should work out private blocking with each instructor.)
- All print materials should continue to be in a standardized form from Session to Session
- At least 2/3 of all graphics to be used during the TV Seminar should be included in the print material package

The required readings proved functional and provision of these in the student materials should be continued. If there is a worth-while text (and study guide), then these seem to provide useful guidelines and structures for the student.

4. The Field Associates were clearly perceived by all levels of participants as a key component in the success of the courses. It is recommended that the role of Field Associate be maintained, that they be given additional instructional responsibilities and that they be reembursed appropriately for these functions.

5. The off-air sessions (pre and post) certainly became integral and essential components of the entire learning system. In respect to this

time, it is recommended:

- That the presession be 10 - 15 minutes each week and be time available for administrative matters and for distribution of materials.
- That the instructional role of the Field Associate be expanded and clarified and that the Field Associate continue to facilitate the post-session discussion and activities with explicit instructor directives.
- The post-session should be 50 minutes long each week immediately following the TV Seminar.

6. It is recommended that the post-broadcast sessions include a variety of the following elements under the direction of the Field Associates:

- Structured discussions expanding the topics discussed in the TV Seminars
- Group exercises
- Audiotapes and other small format media materials
- Student presentations.

7. In order to meet the 39 hours of required contact time, it is recommended that one or more non-broadcast sessions take place, likely either at the mid-point, between Sessions 6 and 7 and/or after the final broadcast seminar. The content of these sessions could include:

- Expansion of key concepts introduced to date
- Introduction of additional material through Field Associates
- Quizzes or examinations
- Student presentations
- Outside lecturers at the local level suggested by each centre and approved by the instructor.

8. Thus, in summary, it is recommended that each 1½ unit course consists of 13 sessions of 3 hours:

- One Student/Instructor Orientation
- Ten Instructional Sessions
- A Summary Class
- At least one Non-Broadcast Session (Mid or Final)

C. On the Management and Delivery

1. As stated earlier, the management structure, given the nature of the experiment (especially in particular its timetable for development and delivery), remained fairly informal and flexible, within agreed upon general guidelines. It seems almost too obvious to mention, that entrenchment of this delivery mode at the University of Victoria would

require a more defined management system, so that it might better articulate with the other distance education program offered through University Extension.

2. The delivery of courses through distant modes, in order to meet the special development concerns and address unique student needs most appropriately, requires the project team to exercise a reasonable degree of flexibility within agreed upon budgetary guidelines. It is recommended that the current procedures in operation for other modes of distance delivery should be readily applicable for satellite-based deliveries.

3. Formative evaluation, in any new instructional model, is of major importance. It is suggested that the formative evaluation of this delivery system be expanded in order to continue the process of model refinement. Special emphasis should be paid to those areas which were underexplored or only recognized during the experimental project.

4. One concern which was raised by Field Associates and some individual students was the lack of adequate research facilities to provide data for the assignments. Therefore, it is recommended that particular attention be given to this aspect of course delivery to the field via ANIK-B. The method adopted of providing a few supplementary books distributed by the field associated did not prove to be entirely adequate to meet student needs in this regard.

5. If the University of Victoria project team continues to use British Columbia Institute of Technology facilities, then the following logistical changes might be useful in cutting down on an exhausting and potentially stressful situation (the travel):

- All members of project team who go to B.C.I.T., especially instructors, should not have any totally inflexible commitments (E.G. class at UVIC) on the production day
- During the winter months, a backup to travel by charter plane should be planned.
- Exploration of a more time efficient ground transportation airport - B.C.I.T. - return should be looked into
- The availability of a few spares Victoria-Vancouver-Victoria on production day should be made known to university community so that cost-sharing of charter might be arranged.

D. On the Technical Aspects

Given the experimental nature of the project, the technical aspects functioned surprisingly well, at least during UVic production time. However, some suggestions could be advanced.

1. It is recommended that the audio system (when operating over the satellite) be checked in sufficient time prior to all sessions, that alternative arrangements can be made when malfunctioning.

2. It is suggested that if use of delivery mode is expanded and when replacement of UVic equipment takes place, that new equipment be more perfectly compatable with the satellite transmission centre.

3. Consideration might be given to upgrading the audio signal.

## PART FOUR -- THE ROLE OF THE SATELLITE MANAGER

### GENERAL REMARKS

In early 1979, the B.C. Government awarded the overall project management of the ANIK-B distant learning experiment to the Faculty of Continuing Education at the British Columbia Institute of Technology. The satellite transmission facility was located at the Institute.

In effect, the University of Victoria project team operated independently of the British Columbia Institute of Technology except in regard to:

- Use of the ANIK-B facility and technical staff during the T.V. Seminar component of the University of Victoria instructional system.
- Maintaining general coordination especially in respect to the field centres. In fact, the University designated its own field associates who liaised as required with the college personnel.

Another major difference in the University of Victoria project model was the presence of the Project Coordinator in the role of producer; whose responsibilities included the design and production of both pre-packaged and live segments of the satellite transmission.

The independent functioning of the program originators allows for a maximum degree of experimentation with potential satellite based instructional designs and a relatively high degree of adaptability to the needs of their specific client group by the individual program originators.

The fact that the British Columbia Institute of Technology Project Management personnel have direct responsibilities in the programming area resulted in a high degree of appreciation of the needs of program producers, and the ability to anticipate and correct weaknesses in the technical facilities.

A number of potential difficulties of the system can also be identified.

Communication between program originators and the British Columbia Institute of Technology was on an ad-hoc basis and therefore, there was an absence of established lines of information flow between the "Outside" program originator and the various institutions involved in the experiment. This presented two major sets of problems:

- The nature of the relationship of the University of Victoria

and the Regional Colleges in their role as field centres was vaguely defined and resulted in some crossed lines.
- The changes at B.C.I.T. in respect to the technical staff, administrative procedures and technical facilities (and these were substantial during the experimental period) were not passed on to the University of Victoria as an "outside" program originator on any systematic ongoing basis.

The scheduling of courses, other timetabling considerations and the physical structure of the ANIK-B classroom were arranged principally to meet B.C.I.T.'s instructional needs. This presented a number of difficulties for the University of Victoria as an "outside" program originator.

RECOMMENDATIONS

1. British Columbia is now in the vanguard of using satellite technology in opening up educational opportunities to its dispersed communities. In order to maintain this lead and improve on both an instructional and technical level, it is recommended that the Satellite Manager undertake a well-defined, on-going program of liaison with similar projects in other jurisdictions and that the Satellite Manager set minimum standards of quality of presentation (not content) and ensure that the evaluation functions are carried out.

2. The question of access to satellite network must also be addressed. It is recommended that the Satellite Manager develop general guidelines regarding delineation of program responsibilities to programming institutions. It should be recognized that the programming institution bear the responsibility for needs assessment after such division of programming responsibilities. (see appended statement by Dr. Glen Farrell, Director University Extension, on "Utilization of an Interactive Microwaves/Satellite System by the University of Victoria") (Appendix H)

3. It is recommended that the Satellite Manager establish a Program Originator's Coordination Committee which would have three major function:

3.1. To facilitate information sharing regarding the modes of presentation, their strengths and weaknesses. This committee might want to undertake the development and coordination of a training program for instructors who will be teaching via ANIK-B.

3.2. To keep all parties up to date and vet changes in the technical aspects of the operation, current field arrangements, and other administrative issues of mutual concern. (e.g. distribution of materials)
3.3. To coordinate timetabling.

4. A formal on-going system of liaison between "outside" program originators and Regional Colleges should be established. This is particularly crucial for those program originators who operate with their own field personnel. The number of such institutions will likely increase with the increase in satellite course offerings. All program originators should be included as necessary in regularly scheduled program originator-College liaison meetings. (The one meeting we had seemed to be very useful to all concerned.)

4.1. Advertising and promotion of both credit and non-credit courses should be coordinated by this committee.
4.2. This committee could fill the role as a sounding board for program originator's ideas for potential courses.
4.3. The issue of standardization of facilities in the receiving centres could also be explored.

5. Credit transferability among programming institutions can be arranged on an individual course basis. The transferability of credit is an issue which should receive special attention.

6. The whole question of means of distribution of support materials should be looked into by the Satellite Manager and/or an appropriate committee.

7. The role and responsibilities of all personnel both at the Satellite Management and technical end and at each of the participating program orginators and receiving institutions should be clearly understood by all.

8. The timetable should be drawn up so that each "outside" program originator be allowed one half hour of "setting up" time prior to their on-air transmission, in order to permit sufficient leeway to adjust the facilities to meet the varying needs of each instructional design.

9. The immediate instructor/student interaction is clearly one of the strengths of the satellite teaching/learning system. In order to fully enhance this aspect, consideration might be given to the following changes in the audio system. Instead of the telephone receivers, each student could be wearing a lightweight headset with a speaker (a la TV Floor Manager's). This would result in less disruption in communication.

## SUMMARY STATEMENT

This experimental project was both a complex one to plan and implement and an exhilarating experience of which to be part for all members of the Project Teams. There is no question in our minds that we learned an only incredible amount in a very short time and clearly realize that we have begun to scratch the surface in respect to the potential within satellite-based instruction.

Following the two Education courses 2 short term satellite programs were undertaken in a non-credit 6 hour workshop in Public Administration and a New Student Information Seminar sponsored by the Admissions Office. Both of these programs also provided valuable learning experiences in satellite delivery.

My special thanks to the invaluable support from University Extension and Education Extension.

As Project Coordinator I hope this document will be useful to those who might be working with satellite-based course delivery at UVic in the future.

APPENDICES

A. EDB435 COURSE PLANNING TIMETABLE & NOTES
B. COURSE DESCRIPTIONS
   1. EDB435
   2. EDB480
C. SAMPLE VIDEOTAPE
D. SAMPLE PRINT MATERIALS
   1. EDB435
   2. EDB480
E. FORMATIVE EVALUATION INSTRUMENTS
   1-4. STUDENT
   5. FIELD ASSOCIATE
   6. INSTRUCTORS
   7. PROJECT COORDINATOR
F. SUGGESTED BUDGETARY GUIDELINES PER 1½ UNIT COURSE
G. NEW DIRECTION FOR EXPLORATION
H. UTILIZATION OF AN INTERACTIVE MICROWAVE SATELLITE SYSTEM BY THE UNIVERSITY OF VICTORIA by DR. G. FARRELL

# Appendix 5

## Evaluation Report
## Yukon Vocational And Technical
## Training Centre

# ANIK-B
# INTERACTIVE INSTRUCTIONAL
# TELEVISION PROJECT

## EVALUATION REPORT, MAY 1980

SUBMITTED BY:

STEVE SCHAFFER, VICE PRINCIPAL

Yukon Vocational & Technical
Training Centre

GOVERNMENT OF YUKON

Box 2703, WHITEHORSE, YUKON Y1A 2C6 TELEPHONE 403-667-5811 TELEX 036-8-260

DEPARTMENT OF EDUCATION
Yukon Vocational and Technical
Training Centre
1000 Lewes Blvd.
WHITEHORSE, Y.T.
Y1A 3H9

1980 05 14

Mr. Brian Gillespie,
Chairman,
Evaluation ANIK B Project,
B.C.I.T.,
3700 Willingdon Avenue,
Burnaby, B.C.
V5G 3H2

Dear Brian:

Re: Evaluation of ANIK B Programme

IITV has shown Yukon residents that it can be a viable education alternative and can provide equal opportunities for learning.

Gary Karlson in his report, points out the problems experienced during the eight months of operation. I do not wish to restate many of these problems - rather I wish to point out a few areas of improvements.

SUGGESTED AREAS OF IMPROVEMENTS:

From our point of view ANIK B has been moderately successful. It is up to all of us using the ANIK B programme to pool our experiences and resources and make the necessary changes to provide a truly first class operation.

IITV provides the opportunity to use "MASTER TEACHERS". It is our view that if a programme is to be aired on IITV it must have the best possible instructor. If such an instructor is not available the programme should not be offered. We feel that it is the instructor that makes the programme a success and not just the subject matter.

Another area of improvement is the PRE-PLANNING of programmes. In order for us to inform the general public regarding courses that are available, we suggest that the programme be planned at least SIX weeks prior to the commencement of classes. The programme should be in a calender type booklet which includes a short course outline, costs and dates of operation. This type of PRE-PLANNING will allow the sending institutions to prepare the course and acquire the necessary material and forward same to the receiving sites thus eliminating problems with the courier service. With this lead time the receiving sites will also be able to properly advertise available programmes.

During the eight months of operation, four transmitters were replaced in Whitehorse. Each time our telephone system was out for four to five days. We suggest that a thorough check is made of the equipment before it is installed. As far as the receiving sites only are concerned, we suggest that there be a direct line to IITV at no cost to the students.

SEE ATTACHED LIST OF SUGGESTED COURSES.

Courses that would be of interest to Yukon residents include:

COMPUTER

Computer Literacy
Computer Electronics
Computer Programming
Data Processing
Micro Computer

ENGINEERING

Arctic Engineering (permafrost study)
Civil Engineering (upgrading)
Civil Technology
Project Manager
Advanced Geology/Mining

ECONOMICS & FINANCE

Basic Economics
Investments
Marketing
Contracts
Business Law
Introduction to Criminal Justice System
Law Related to Engineering
Supervisory Courses
Business/Financial Management
Small Business Management Program (Federal Business Development Bank Program)

TRADES & INDUSTRY

Estimating/Costing/Depreciation
Metallurgy Related to Welding
Metric Construction
Heavy Equipment Operator Maintenance Program

GENERAL INTEREST

Consumer Education in Home Buying
Energy Conservation
Assertive Training

Courses suggested by P.V.I:

Building Service Worker (Janitorial) - staff - maintenance, proper cleaning of equipment and floors, emphasis on carpets, window cleaning, etc.)

Cook (Journeyman) 24 hr. theory course
Food Training (Baking, cutting, etc.)
Gardening - indoor, green houses (solar)
Hydraulics for Heavy Equipment, Machines, Pumps, Valves, etc.
Secretarial, Legal and Medical
Small Restaurant Management
Spray Painting - Automotive and Heavy Equipment (upgrading)
Tile setting, Floor covering, etc.

# Appendix 6

## Comments And Evaluation:
## The Continuing Legal Education Society Of British Columbia

TO: Brian Gillespie

FROM: The Continuing Legal Education Society of British Columbia
Jack J. Huberman, Executive Director
Helen Resnick, Program Co-ordinator

RE: Comments and Evaluation ANIK-B Interactive Instructional Television Project

## INTRODUCTION

The Continuing Legal Education Society of British Columbia is incorporated under the *Societies Act* of British Columbia. The Society's members are the Law Society of British Columbia, The Canadian Bar Association (B.C. Branch), The University of British Columbia and The University of Victoria. It is charged with providing continuing education for the legal profession. Registrants include those who have been admitted to the Bar, articled students and legal support staff (for whom we provide special programs designed to parallel those for lawyers).

Course leaders are lawyers, judges and other professionals who volunteer their time and expertise as a contribution to their colleagues. With the assistance of C.L.E., they plan the courses, serve as instructors, and prepare the course materials. C.L.E. is responsible for administrative tasks including organizing the courses, publicity, registration, providing for necessary facilities and publishing the materials. Course fees pay the costs of administration.

## C.L.E. ANIK PROGRAM

The following comments concern only the C.L.E. programs presented on ANIK. The IITV Project was underway when we began to transmit courses on February 12, 1980 and we did not participate in overall project planning.

Our objective was to test and assess the potential for future use in British Columbia of Interactive Instructional Television using a satellite to transmit legal education courses. Several different types of C.L.E. courses designed for different audiences were presented in order to assess the interest and response of these groups to satellite transmission. Our program contained:

1. A lecture series designed for the general public, After the Honeymoon, a series of six talks on family law, presented on February 12, 19 and 26.

2. An interdisciplinary seminar, Forestry Law (March 4, 11 and 18) for professional foresters and members of the forestry industry as well as lawyers. Forestry people attended at all satellite locations.

3. Practical courses for lawyers: Foreclosure Actions (March 25 and April 1) and Professional Responsibility in Real Property Transactions (April 29).

4. A course for legal assistants and legal secretaries, Estates (April 8, 15 and 22).

5. A live course for lawyers on recent developments in important substantive areas of the law, covering Constitutional Law, Real Property Law, Company Law, Family Law, Criminal Law and Contracts (May 6, 13 and 20).

All except the Recent Developments series were repeats of successful courses. Estates was presented live; all other repeat courses had been videotaped and instructors chose to use taped lectures with live discussion periods in order to save preparation time. Most courses were presented by the straight lecture method; no special attention was devoted to the ANIK format. We were assigned Tuesday evenings, 7:00 to 10:00 p.m. until the end of the Project.

One to four C.L.E. staff members have attended each program to:

(a) introduce instructors and programs; check with receiving stations; help instructors, registrants and technicians with course procedures and technical matters;

(b) sign in registrants; distribute course materials; take care of evaluation forms;

We have had no contact with B.C.I.T. about any aspect of our programs except physical arrangements, such as requesting extra classroom space for some programs.

C.L.E. advertises its courses by mailing brochures and flyers to the profession, and, in the case of an interdisciplinary course, to other interested groups. Examples of satellite advertising are enclosed. People register by telephoning the C.L.E. office or by returning the form enclosed with the advertising. A standard evaluation form and a book of course materials are handed out at registration. These procedures were followed for satellite courses.

C.L.E. ANIK EXPERIENCE

We experienced, on a small scale, the administrative problems associated with presenting a course in up to 11 locations at one time. Getting course materials to each location on time was the most difficult task, and the methods suggested by the ANIK co-ordinators were found to be reliable. The assistance of the ANIK co-ordinators is gratefully acknowledged, particularly for handling course materials, local attendance records and evaluation forms. Their help and advice about local circumstances made it possible for our courses to run smoothly most of the time. We also appreciate the feedback and suggestions many ANIK co-ordinators offered.

The response to all programs except the public lecture series was very good. There seemed, for this series, to be no direct relationship between the effort expended on publicity and the size of the audience. For example, despite extensive distribution of flyers and a series of radio announcements in the Vancouver area, few attended at B.C.I.T.

Registration in the courses designed for the legal profession was about as expected. Attendance was highest for Estates; all registrants attended some of the course and most registrants attended all sessions. Note that registrants are legal support staff, not lawyers. Most regular C.L.E. courses last one day. We allowed two or three three-hour satellite periods for these courses in order to ensure time for questions and discussion. The demands of practice are, we believe, the main reason that lawyers fail to attend a regular course or attend only some sessions. We did not attempt to learn why some registrants failed to attend satellite courses, or why they missed parts of a course. A few registrants informed us that they left the campus. Campus maps were sent to all course leaders and to all registrants of the Recent Developments series. The availability of a map, however, does not seem to correlate with attendance; registrants of Estates were not sent maps.

The most dramatic consequence of C.L.E. participation in ANIK is a demand for C.L.E. satellite programs from lawyers in many areas of the province which do not receive ANIK. They find it impossible or inconvenient to attend courses at the present locations. Much of our potential audience is located in areas such as the Okanagan, Victoria-Nanaimo, and the Fraser Valley, which do not receive ANIK. Two ANIK locations have no lawyers (Gold River and Mackenzie) and one has few (Fort Nelson).

Interest in the Recent Developments series is so great in the Okanagan that lawyers in both Kamloops and Kelowna are organizing their own presentations of this program at their local colleges. In addition, I received a visit from Mr. Dirk J. Sigalet, President of the Vernon Bar Association. Representing a membership of about 38 lawyers, he officially

asked that access to our satellite programs be provided in their area. We are also making arrangements for the Vernon lawyers to see the Recent Developments series.

General requests to receive C.L.E. satellite programs have been received from all areas of the province. In answer to these requests, we have explained the C.L.E. involvement in ANIK, noted that the project is being evaluated and may be expanded, and suggested that these lawyers write to W.D. Robertson at B.C.I.T. and to Dr. Walter Hardwick at the Ministry of Education explaining their interest and concerns.

Among those requesting C.L.E. programs are:

Campbell River:

David L. Gibson, David L. Gibson & Co.
Allan C. Lazerte, Lazerte, Schmidt & McVea
Daniel A.J. Wickham, Grant Saunderson & Co.
North Island College

Castlegar (Kootenays):

Anne M.N. Jones, McGauley, Polonicoff & Jones

Chilliwack (Fraser Valley):

William Grist, Rempel, Kaye, Toews

Kelowna:

D.W. Wilkinson, Wilkinson & Pike

Nanaimo:

Malaspina College

Vernon (Okanagon):

Dirk C. Sigalet, Vernon Bar Association

CONCLUSIONS AND SUGGESTIONS

We conclude that satellite transmission of continuing legal education courses has been successful and should be continued. It is not accompanied by the loss the regular college student feels when he measures ANIK offerings against regular college courses. We suggest that in the context of continuing professional education courses, ANIK planners may develop more effective administrative procedures and improved instructional methods without sacrificing the felt needs of regular college students, and we hope that the Project will include continuing legal education courses in its next stage.

Satellite transmission is a most efficient way for lawyers throughout British Columbia to receive continuing legal education courses. A satellite registrant put it well on his evaluation form:

> *Consideration should be given to satellite courses for all CLE courses not offered east of the Okanagan. I cannot afford to go that far and would probably have taken a half dozen of last year's offerings in addition to those I did if I could take them in Cranbrook.*

Registration in C.L.E. courses increased over four-fold last year to over 8,300 and the scope of C.L.E. activity is increasing. Lawyers have found the courses a valuable aid in keeping abreast of developments

in law and in maintaining and improving practice skills. This is directly translatable into more effective and satisfying service to clients. There is a large potential audience for all types of C.L.E. programs, and our short experience with ANIK indicates that satellite transmission is an appropriate, efficient and suitable means for making these courses available throughout the Province.

Lawyers expect and demand both class content and course materials which will help them to improve their practice of law. Only by providing these can C.L.E. courses justify the time and money that registrants spend to attend. It is also important that we provide an opportunity for registrants to bring up specific problems or questions related to the course. However, class participation is valuable only if it increases the usefulness of a course. A typical Vancouver course is presented in a hotel ballroom to about 150 to 250 people; registrants do not expect to participate or to have a personal relationship with their instructors. We have noted that the opportunity for interaction with instructors, particularly at B.C.I.T., is far greater on ANIK than in a usual Vancouver setting, and both course leaders and registrants have commented favorably on this as well as on the opportunity to talk to registrants at other locations. The inconvenient location and physical arrangement of the sending studio (particularly the poor sound system, the large monitors and the camera placement) counteract some of the pleasant informality. The response from other locations varies more widely. This is true as well for our regular courses. Some find the interactive capacity an important feature having great potential; others are critical of the technical quality of the transmission at their locations. There have been criticisms of the instruction; any shortcomings are magnified on television. Some simply prefer live courses to any alternatives. Most, however, consider satellite transmission adequate compared to regular C.L.E. presentations; availability of courses at convenient locations is of primary importance to them.

A Note on Communications and Technical Quality

We have received little information about ANIK or how to use it effectively. We simply did the best we could, and, at times, we actively sought information. It was left to the technicians to present whatever information we have received about presenting programs; they have been very co-operative about providing the necessary arrangements for our courses, and have taught us much about videotaping and playback. Perhaps some standard guidelines can be prepared for the use of senders, which present basic technical information, describe procedures, and outline what senders and receivers can expect of each other.

The physical arrangement of the ANIK sending studio may be improved by:

1. Having a good sound system in the sending studio; at present it is poorer than that in the second classroom or in the theatre.

2. Eliminating monitors in the sending studio, or having very small ones which do not block off the instructor.

3. Placing cameras so instructors need not look up to be natural on video.

4. Arrange the room so messages can be brought to the instructor without crawling or crossing in front of the camera. Perhaps a space along one side of the room between the wall and desks can be left as a passage to the front out of camera range.

5. Adjust the sound from Cranbrook (they come in much louder than the others).

Other technical problems, such as loss of signal or interactive capacity have been noted.

Expression of Appreciation

The Continuing Legal Education Society wishes to thank B.C.I.T. and the Ministry of Education for the opportunity to participate in this exciting experiment in educational delivery. We believe that the satellite offers an important means for improving the quality of legal services throughout the Province by making continuing education available to lawyers in their own localities.

We believe that satellite delivery of continuing legal education courses is efficient and effective. Lawyers representing large Bar memberships in all areas of the province not now receiving ANIK have requested extension of the Project to make our courses available to them.

We ask that C.L.E. be permitted to resume transmitting courses beginning September 1, 1980 using the same schedule (Tuesday evenings, 7:00 - 10:00 p.m.). In order to accommodate the demand for our courses, we request that the Project be widened to provide service to the Okanagan, the Lower Mainland and to the Victoria-Nanaimo area of Vancouver Island.

Jack J. Huberman
Helen Resnick

May 15, 1980

## ADDENDUM

Our satellite program has been reported in the National (a legal newspaper distributed to all lawyers in Canada), and our courses have been listed in the American Law Institute - American Bar Association Directory (a periodical which lists, by state, continuing legal education courses offered in the United States). We have also been asked to provide information about the organization and operation of our satellite program to continuing legal education directors in several Canadian provinces and American states. Information about our satellite experience has been requested for inclusion in the ACLEA (American Continuing Legal Education Association) newsletter, which reaches continuing legal education organizations throughout North America.

# Appendix 7

## Evaluation Report
## College Of New Caledonia

# EVALUATION REPORT

# ANIK B INTERACTIVE T.V.

# PILOT PROJECT

# at

# C.N.C. AND MACKENZIE

Submitted by:

Ed Swaren
Prince George, B.C.

1. INTRODUCTION

The brief report which follows is based on discussions with and/or written reports from Charles McCaffery, Principal (C.N.C.), Don Anderson, Dean of Arts and Science (C.N.C.), Eleanor Riches, Associate Coordinator, Systems and Special Projects (B.C.I.T.), Tom Toulson, Dean, Community Education Services (C.N.C.), Dave Snider, Field Representative, Anik B Project (C.N.C.), Nancy Jennings, Regional Director of Community Recreation and Education (Mackenzie), Owen Corcoran, Field Associate, (University of Victoria), Stu Berry, Audio-Visual Technician (C.N.C.), and Dick Scales, Ex-Dean of Student Services (C.N.C.).

In addition, I have talked informally with community groups and visited several Anik B classes in session to view lessons and to talk to participating students. I have also sat in on five Friday afternoon evaluation sessions conducted via Anik B by Bill Robertson from B.C.I.T.

As an "arms-length" evaluator, it has not been possible to spend the time required to ensure that all my comments are accurate, therefore, the words, "appears to" are frequently used throughout. I have not included statistical charts because it is my understanding that C.N.C. personnel have attended to this aspect of the pilot study.

2. ORGANIZATION AND MANAGEMENT

There are usually many purposes for declaring new programs as "pilots". One assumes, however, that the fundamental purpose is to determine whether a given program should be continued, discontinued, or modified. Planning a pilot project so that it produces valid and reliable data therefore is an exceedingly important aspect of program development and implementation. Within the usual constraints of the terms of reference of the funding body, the pilot must be carefully structured and all participants of the pilot must be apprised of the rationale for the structure. The planning and conducting of pilot projects requires time and leadership. The Anik B pilot project in I.I.T.V. appears to have been established without some of the aforementioned basics. Despite repeated requests, the writer has not been provided with a concise statement of the objectives and rationale for the project. This has made it exceedingly difficult to determine the importance of the bits and pieces of information gathered. Adding to the frustration has been a lack of a specific timeline for the pilot and a lack of information about who at C.N.C. and B.C.I.T. are involved in the pilot. An evaluator must know the names, positions, titles, responsibilities within the project and the extent to which commitment to the project has been assured of all involved personnel. At the outset of this project at C.N.C. it was evident that, other than Senior Administrators, nobody viewed their role relative to Anik B to be a major one. Indeed, for the crucial first weeks of the pilot, there was considerable confusion at C.N.C. about who was responsible for clarifying

in-house administrative procedures and for undertaking the considerable "leg-work" relative to the project. Information requested by B.C.I.T. that was intended to provide data about enrolment patterns and program quality so that early adjustments to programming could be made was either not forwarded or forwarded too late to be of use. The appointment of an on-site representative at C.N.C. was an important step in improving communication both among personnel at C.N.C. and between C.N.C. and B.C.I.T. Had more time been taken to plan the project as a pilot, the need for an on-site representative at field centres as large as C.N.C. would have been evident at the outset. It is difficult to calculate the impact of the above-mentioned problems. The low enrolment and high attrition rate of some of the course offerings appear to have been caused by other factors. In other words, the seemingly unstructured beginnings to the Anik B project at C.N.C. surprisingly did not interfere in any significant way with eventual outcomes.

Major organizational and management problems have arisen due to delayed communication between B.C.I.T. and the Anik B centres. This has been especially notable at Mackenzie where the interactive portion of Anik B is not in operation. Notification about course offerings have arrived too close to the beginning of first sessions. This has made it impossible to advertise courses adequately. To depend on the Friday afternoon sharing sessions as a means of notifying centres about future course offerings is both inadequate and frustrating. Too many man-hours were involved in attempting to sort out "on air" the confirmed courses from the tentative courses. Furthermore, to advertise courses adequately, centres require more than course titles, starting dates and fees. Often the hard copy detailed listing of

topics arrived too late to be of use. The fact that a number of students withdrew from courses because the content was "not as expected" attests to the importance of providing accurate information about courses well in advance of start-up dates. An attempt should be made by B.C.I.T. to provide no less than two months lead time to Anik B centres in order that in-house preparations and community advertising can be adequately undertaken.

SELECTING COURSES

Analysis of enrolment and attrition patterns leads one to believe that "self-contained module" courses such as Nursing and Hospitality and Tourism have much more appeal than "semester-type" courses. However, one should not conclude that only courses that attract high enrolment should be offered via Anik B. Indeed, it could be argued that the opposite is true. On one hand, most educational enterprises find it financially impossible to offer courses to special needs groups wherein the potential for high enrolment is lacking. Yet, for these students, it is often equally impractical to attend classes at a central location many hundred of miles from their place of employment. I.I.T.V. is an excellent medium for meeting the educational needs of small numbers in various pockets throughout the province. On the other hand, large centres such as Prince George may find that courses which have the potential of drawing large numbers of students might be better offered by local instructors. C.N.C. has chosen not to offer the Study Skills and Early Childhood Education courses for this reason. However, even large centres may find it impossible to attract qualified instructors for some courses and this must be taken into consideration when deciding between Anik B courses and local courses.

More time and effort is required to pinpoint the type of programming most needed in communities serviced by Anik B. The impetus to offer a given course should grow from the communities and be communicated to B.C.I.T. One has the feeling that current course offerings are largely determined by various educators and by administrative bodies rather than by potential users. Based on discussions with self-employed business persons and professional groups, it appears that the major need in Prince George and surrounding communities is for various "upgrading" seminars rather than for credit courses. (Here again, one must be cautioned about placing too much emphasis on the need for high enrolment.)

Accountants, lawyers, computer technologists, real estate salespersons, small business operators and the like, are concerned about their inability to bring in the "best in the field" to offer seminars and they fear that without this input their knowledge and skills will not serve their needs in the future. An indepth study of community needs should be undertaken well in advance of program planning so that user needs and quality instruction can be meshed.

To pave the way for community input, there is a need for more overall awareness about Anik B in the community. Free coverage via newspaper, radio and television, is usually easily obtained in small centres and should be used as a means of meeting this need.

PRESENTING COURSES

Although most students stated that they found learning via Anik B "very effective when compared with correspondence courses", many also commented that simply viewing and listening to lectures presented on

T.V. was not very stimulating. Literature from B.C.I.T. states that, "the potential of this course lies in its two-way nature. The instructors have designed the presentation of their respective topics as seminars, not as lectures." It appears that the good intentions stated were difficult to carry out. Some students did not use the interactive audio capability at all while many others felt "very uncomfortable" about using it. Most instructors appear to need help in understanding how to use T.V. to best advantage. Standard classroom presentations obviously need to be modified. Audio Visual specialists and perhaps drama specialists should provide pre-service and in-service training to instructors. As well, instructors require knowledge of "Boundary Breaking" activities so that students can quickly feel more at ease both within the classroom and within the system as a whole. A group leader or monitor is required in every classroom to ensure that technical difficulties are reported and to provide focus to post-session discussions.

## CONCLUSION

I.I.T.V. clearly has the potential of becoming a powerful educational force in British Columbia. Thus far, the technology itself has proven to be more successful than the programs offered. When more is learned about program needs, teaching strategies, and "distance" group dynamics, I.I.T.V. could easily become the major means by which persons, far from the lower mainland, will keep up-to-date in our rapidly changing world.

SUMMARY OF RECOMMENDATIONS

It is recommended that:

- B.C.I.T. provide Anik B centres detailed information about courses offerings at least two months in advance of first sessions.
- An indepth study of community needs be undertaken prior to establishing the schedule of seminars and courses to be offered next September.
- Field centres undertake to raise the general level of awareness of Anik B within their respective communities.
- Consideration be given to offering more specialist "up-grading" seminars during the fall semester.
- Pre-service and in-service training sessions be provided to all Anik B instructors and seminar leaders to ensure that the best possible use of the medium is encouraged.
- A group leader or monitor be appointed to every class to ensure that technical difficulties are reported and to provide focus to post session discussions.

APPENDIX 8

EVALUATION OF ANIK B
NORTHERN LIGHTS COLLEGE
DAWSON CREEK

The Anik B project at Northern Lights College functioned from the first under exacting contraints. Time was very limited, staff non-existent. There was no planning to speak of. For the first three months the Anik B project was managed on a random, day-to-day basis. At that time (October, November and December, 1979) the project was managed by several staff members who sacrificed their free time.

It became apparent that this situation could not continue. Student enrolment was low and initial interest in Anik B seemed to be waning. A coordinator was hired in January, 1980, to be totally responsible for the project and serve as a contact between Northern Lights College, B.C.I.T. and other participating centres.

Planning for Anik B in any capacity has always been poor, whether at the local level or originating from B.C.I.T. It must be noted that successful planning and implementation of this project at our campus depends a great deal on a more concrete structure coming out of B.C.I.T.

The quality of the courses and seminars offered, varied in direct proportion to the amount of planning time devoted to that particular program. Certainly none could be classed as "excellent"; the project is still too young for that. From our end, time was of the essence. It was not uncommon to be notified of a program seven days in advance with the expectation that the turn-out of interested viewers would be ample. Both our newspaper and our TV-Radio station require at least three to four days lead time in order to place an ad. We feel that 30 days notice would be adequate. This time would be used for media advertising, telephone contacts, mail, registration of students, inquiries, etc. It has not been uncommon for an interested person to become aware of a program after it has begun, or even after it has finished. The ultimate goal would be to have sufficient time to have the complete Anik B schedule incorporated into or added on to the regular college calender, with some time slots left open for seminars, workshops, etc. It would also be advisable to give some thought to course content. A few programs were

completely inappropriate and clearly did not take the needs of our community into consideration. This is a relatively minor concern, but should be corrected in the interests of better, more comprehensive service to the potential student. An in-depth survey or poll should be taken of all participating colleges to determine the specific requirements in terms of education at each centre. The results of that survey would then be incorporated into a well-rounded, well-planned, all-embracing schedule of courses and seminars that accommodates the specific needs and requirements of all the centres and communities currently participating in the Anik B project.

The employment of a part-time coordinator or contact at the Dawson Creek Centre has made a substantial improvement to the delivery of service in this community. Problems, of course, still appear but they do seem to be fewer and less serious. Communication, on all levels, is still inadequate and in some instances non-existent. More conscious efforts will have to be made by all parties concerned to remedy that problem in order to ensure effective administration of Anik B.

Technical quality of IITV is difficult to assess as most of us have no model to compare it to. Considering that Anik B is an experiment, with a limited budget and limited preparation time, the technical quality appeared adequate. There was the odd shadow on the screen, minor problems with the transmission equipment, but our campus was very fortunate in not having to deal with a major breakdown.

Consideration should be given to improving the format of the various productions. TV production techniques should be utilized as a matter-of-course. Even the better programs have a tendency to drag at times.

In closing, we want to say that Anik B has been an exciting project to work with - full of challenges. It has grown and improved steadily over the last eight months and consequently the learning experience for those involved has been immense. The value of IITV as a teaching tool for remote areas is considerable and cannot be overlooked. The population in the Dawson Creek area is very interested in the Anik B project and has made sufficient use of it to warrant further consideration being given towards its continuance.

ENROLMENTS

SEMESTER II

| PROGRAM | START DATE | SESSIONS | ENROLMENT |
|---|---|---|---|
| Survey I | January 7 | 15 | 0 |
| Mining | 8 | 21 | 0 |
| Geology & Soils | 8 | 21 | 1 |
| Mining Tutorial | 11 | 8 | 0 |
| Anatomy & Physiology | 16 | 10 | 2 |
| Concrete Technology | 17 | 8 | 0 |
| National Building Code | 17 | 11 | 6 |
| Teaching Reading in Primary Grades | 17 | 11 | 10 |
| Use of Schools in Communities | 21 | 1 | 0 |
| Avalanche | 28 | 2 | 5 |
| News Media Forum | 29 | 3 | 1 |
| Family Law | February 12 | 3 | 1 |
| Child Development I & II | 20 | 15 | 1 |
| Teleconference - Assn. of Professional Foresters | 25 | 1 | 3 |
| Recreation Management | March 3 | 5 | 0 |
| Recreation for the Handicapped | 3 | 1 | 0 |
| Focus on Childhood | 3 | 12 | 0 |
| Planet of Man | 3 | 12 | 0 |
| Ascent of Man | 3 | 12 | 0 |
| ID 104 | 4 | 10 | 4 |
| Forestry Law | 4 | 3 | 0 |
| Finding My Own Way | 4 | 12 | 0 |
| Basic Horse Care | 4 | 12 | 0 |
| Renewable Society | 5 | 12 | 0 |
| Olympic Profiles | 5 | 12 | 0 |
| The Age of Uncertainty | 5 | 12 | 0 |
| Automotives | 6 | 12 | 0 |

| PROGRAM | START DATE | SESSIONS | ENROLMENT |
|---|---|---|---|
| Classics Dark & Dangerous | March 6 | 12 | 0 |
| Adventures in History | 7 | 12 | 0 |
| Family & The Law | 7 | 12 | 0 |
| Genetics in Medicine | 13 | 5 | 1 |
| UBC Health Sciences Open House | 14 | 10 | 2 |
| Trail Designation & Access | 24 | 1 | 3 |
| Foreclosures | 25 | 2 | 5 |
| Playground Leadership | April 7 | 6 | 0 |
| Estates | 8 | 3 | 7 |
| Cont. Pharmacy ED. | 9 | 3 | 5 |
| Fire Commission on Fire Safety | 10 | 3 | 5 |
| Alcohol Abuse | 17 | 5 | 4 |
| Property Transactions | 29 | 1 | 6 |
| Public Administration | May 1 | 2 | 6 |
| Riverfest | 5 | 1 | 1 |
| Company Law | 13 | 1 | 2 |
| Family Law | 13 | 1 | |
| Building Code Workshop | 8 | 3 | [illegible] |
| Real Property Law | 6 | 1 | [illegible] |
| Constitutional Law | 6 | 1 | 2 |
| Turn on to B.C.I.T. | | 1 | 4 |

Total Enrolment for Semester II of Anik B as of May 13, 1980 91

# Appendix 9

## Evaluation Report
## Centre For Continuing Education, UBC

1 May 1980

Anik "B" Evaluation

(a) Responsiveness of Anik Administration

I have found the response from the administrators of the Anik Project to be very good. They are most cooperative in providing any assistance they can within the severe limitations they find themselves working under. Both Bill Robertson and Rob Nason appear open to any and all programming ideas for Anik.

(b) Response from Receiving Locations

I feel somewhat uneasy about the kind of response we have received from the 11 locations hooked into the Anik system. In all cases programs that we have developed for Anik have been developed based on needs identified by us here in Vancouver. I can't help but feel that we need to involve the 11 locations much more than we have in determining how the Anik system will serve them and what kinds of programs it will provide. In a number of cases over the last three projects, we have found participation to be sporadic and although some of this might be attributable to technical problems encountered from time to time in the system, I can't help thinking that some of the lack of participation is due to feeling that the receiving locations are not playing the kind of active part in determining programming needs that they should be.

In the case of the Introduction to Teaching Adults program, which is scheduled for Saturday, April 26th, I have found a high degree of cooperation from the individual colleges involved. This level of cooperation, I feel, is due in part to the fact that they were involved with the development of this program from the very beginning. Even though the idea was generated here at UBC, the Anik coordinators and the C.E. coordinators in the institutions were kept informed about the program and encouraged to present

their views. Their reactions have been encouraging, and this cooperation coupled with a model which permits us to send resource people into the locations to be on-site as an additional resource to the broadcasts, does increase the quality of programming substantially. Certainly Anik is only a reasonable alternative to the more established systems of delivering instruction. It cannot be expected to be equateable to classroom instruction but it does have good potential as a compromise system.

(c) Time Bookings

I encountered one or two minor problems with booking time on the Satellite. In two cases the rescheduling dates for presentations were not communicated to everyone within the Anik administration here in Vancouver. It is only a minor problem and one which would be easily solved by me, as the programmer, simply keeping in touch with all of the people involved in scheduling on Anik. I find that to be a fair responsibility for me as a programmer using the system. Certainly Bill Robertson and Rob Nason have their hands full as it is.

(d) Programming

The quality of programming which I have been responsible for on Anik, and some of the other programming which I have seen, give me great concern. It seems to me there are two major factors militating against the quality of programs that we are seeking on Anik. One is the technical restrictions of the system itself. It seems incongruous to me that even the basic resources for broadcasting like a telecine chain are not available in the Anik system. These kinds of technical restrictions certainly hurt the quality of programming on Anik. Simply transmitting a classroom experience is not enough to warrant calling Anik an instructional television system. I feel the government should give strong consideration to up-grading the technical

capabilities of Anik B. Now that the novelty of having a broadcast television system is over, Anik will likely come under a high degree of criticism for its lack of technical quality.

The quality of instruction which I have seen on Anik also leaves a lot to be desired. No one is really to blame for this situation, but certainly something needs to be done in order to provide some professional development activities for those resource people using Anik in order to help them develop their skills in using the median effectively. In fact, I have discussed this matter with Rob Nason and one or two other coordinators at the receiving locations, and the consensus seems to be that some form of training in how to use Anik is essential for anyone appearing on the network. Certainly the need is critical for Anik to survive as a credible distribution system for educational activities.

# Appendix 10

## Evaluation Report
## Ministry Of Transportation, Communications And Highways

PROVINCE OF
BRITISH COLUMBIA

Ministry of
Transportaion,
Communications
and Highways

940 Blanshard St.
Victoria
British Columbia
V8W 3E6

May 14, 1980

Mr. Brian Gillespie
Chairman
Evaluation ANIK-B Project
B.C.I.T.
3700 Willingdon Avenue
BURNABY, B.C.
V5G 3H2

Dear Mr. Gillespie:

RE: Project Management - ANIK-B

Our comments and observations regarding project management of the ANIK-B, I.I.T.V. for 1979/80 are as follows:

Initial Contact

A minimal amount of lead time was available to organize and prepare for course presentation when the Ministry was approached with the proposal to participate in the project. From this experience, it is apparent that there must be ample time prior to beginning the program to plan, prepare and obtain necessary approval from the executive, which is required in order that program costs can be forecast and included in the appropriate fiscal year budget:

Short notice to organize programs impose time constraints which resulted, or could result in the following problems:

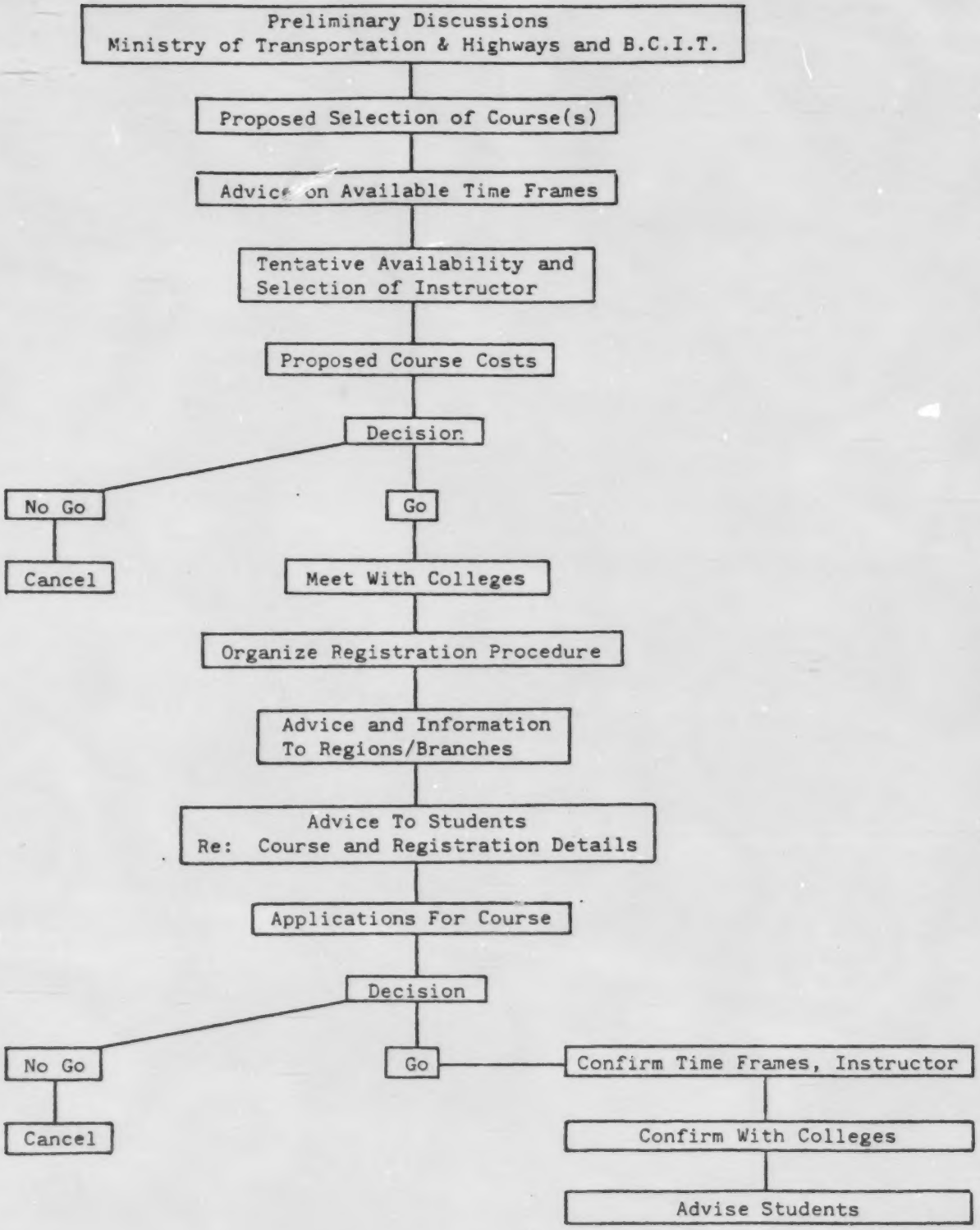
- Limited amount of finances available for programming.
- Selection of good course instructors.
- Limited time available to prepare course materials, instructor notes, handout material and exams.

- Limited time available to print and send out course notes prior to start of course.
- Limited time available to prepare and print flyers for distribution to advise about the system and available courses etc.
- Limited time to notify personnel with Regions and Branches about the courses and schedules.
- Limited time to communicate effectively within Colleges, Regions and Headquarters.
- Limited time to prepare proper registration procedures between the Ministry, B.C.I.T. and Colleges.

Administrative Support

It has been quite evident that both Ministry and B.C.I.T. were negligent in arranging to visit the sites initially to have face to face communication with Ministry, Regional and College personnel. If this had taken place, all agencies involved would have better understood their responsibilities and many problems may have been resolved before the courses began. Time was limited but much more could have been done. As it happened everyone thought that someone else was "doing it".

The following flow chart details the progressive steps which should be taken to set up a program.


Preliminary Discussions
Ministry of Transportation & Highways and B.C.I.T.
Proposed Selection of Course(s)
Advice on Available Time Frames
Tentative Availability and
Selection of Instructor
Proposed Course Costs
Decision
No Go
Go
Cancel
Meet With Colleges
Organize Registration Procedure
Advice and Information
To Regions/Branches
Advice To Students
Re: Course and Registration Details
Applications For Course
Decision
No Go
Go
Confirm Time Frames, Instructor
Cancel
Confirm With Colleges
Advise Students

For whatever reason, some colleges have not been as supportive of the Highway Technology Training Program courses as we would have liked them to be. Students have arrived and found the classroom locked, instructional materials not available and equipment not functioning. This has been a factor in student attrition, certainly not in all cases, but it has been a major factor in some.

Because of limited time and staff, B.C.I.T. was often hard pressed to accomplish all the required services such as:

- Tape reproduction
- Graphic preparation
- Handout preparation and typing
- Photocopying

In order to meet course needs, it was often necessary for the Ministry to prepare the graphics and do typing for course materials.

B.C.I.T. must also advise outside instructors when changes are made to the system. Instructors have stated that it is a bit disconcerting to walk into a class and find changes without prior warning. An example was when the modified phone system was put into operation. (The new system was good and it fit well with the satellite phone transmission.)

Co-ordinator on Site

To avoid the problem of too many "fingers in the pie" and to provide a smooth operation, a co-ordinator on site at each reciving station would be beneficial to control management of the project. A site co-ordinator would be able to liaise and promote with Senior Highways Officials on employee needs and total product available.

The co-ordinator would not necessarily have to be present at class at all times but their service would be valuable to the student to:

- Initially demonstrate operation of all equipment to be used.
- Check and have equipment operating.
- Have the classroom open and notes etc. available.
- Register students and check-up on dropouts.
- Distribute and collect evaluation questionnaires.

Use of Video Tapes

As each program is video taped for use to cover poor/no reception or for students missing a session, it is in the Ministry's interest to have taped sessions available for distribution to those areas not served by ANIK-B. Some system must be established prior to delivery for release of tapes to use in future training sessions for Ministry personnel. As the Ministry has the video playback equipment available, use of the tapes would allow for a flexible study schedule which would, in many cases, be more compatible with employees work schedules.

In addition, large areas not serviced by the ANIK-B project, such as the Kamloops Region and a large portion of Nelson Region, would benefit from the capability of using video tapes for training.

It was noted that, in some cases, supplemental video tapes were not sent out, not received on time, or were late in arriving for student use. This was extremely frustrating to the student as it broke the continuity of the course.

Length of Course

Consideration must be given regarding the length of course/program. Ministry courses beginning in October and ending in May have too long of a time frame. Many employees are on shift work or are in a Branch where they were transferred out or did not get in to a centre before the start and left before the end of a course. By compacting the time more employees may have had the opportunity to participate. It also is much easier to have someone commit themselves for a shorter time span. Time allocation should be more appropriate to work schedules of the employees.

Rather than having the Geology and Soils 1 course and the Concrete Technology course on alternate weeks, it would probably have been better to have one course run continuous each week and then run the other. In this way each course would have been completed in 15 weeks. Possibly consideration should be given to a three hour class each week.

Financial Considerations

Because of the limited number of students enrolled in each course, we have found this medium to be much more expensive than using the correspondence format. However, provided that we could meet the projected number of students, course costs could be as low as the correspondence costs/student; even lower with increased enrolment. This information is presented in the following chart of "Summary and Comparison of Course Costs".

Arrangements were satisfactory whereby all costs for ANIK-B programs, either direct or indirect, were billed through B.C.I.T. to the Ministry.

SUMMARY AND COMPARISON OF COURSE COSTS

| COURSE | NUMBER OF STUDENTS | (1) ANIK-B COSTS (NOT INCLUDING TAPE COSTS) | (2) ANIK-B COSTS (NOT INCLUDING TAPE DEVELOPMENT OR REVISION COSTS) | CORRESPONDENCE COURSE COSTS | NO. OF STUDENTS REQUIRED USING ANIK-B COSTS (1) & (2) TO MEET CORESPONDENCE COSTS | |
|---|---|---|---|---|---|---|
| | | | | | (1) | (2) |
| SURVEY 1 | 20 | $261.00/HWY. STUDENT | $169.00/HWY. STUDENT | $77.00/HWY. STUDENT | 68 | 44 |
| GEOLOGY & SOILS 1 | 8 | $303.00/HWY. STUDENT | ---------- | $125.00/HWY. STUDENT | 20 | -- |
| CONCRETE TECHNOLOGY | 16 | $443.00/HWY. STUDENT | $232.00/HWY. STUDENT | NO CORRESPONDENCE COURSE BUT ESTIMATE $125.00/ HWY. STUDENT | 57 | 30 |

## Equipment

There was an isolated problem in Terrace Region where the 3/4" video format had to be converted to ½" video format before it was sent to Prince Rupert for viewing. It is imperative that all equipment be compatible to reduce any delay in student useage of course materials.

## Conclusion

Although ANIK-B course costs may be fairly high in relation to correspondence course costs and that various problems were encountered with the administration and delivery of the courses, the most important concern is the effectiveness of the program to stimulate, to inform the student so that they are more aware and knowledgeable about the subject covered. This will be evaluated and discussed in the report to follow.

## Recommendations

- Experience has indicated the proposal needs planning in all aspects for acceptable implementation.
- Improve communications between all agencies.
- All equipment to be compatible.
- All basic course material to be prepared prior to beginning a course.
- All handout material to be prepared prior to beginning a course.
- Advise all involved (instructors) on changes to systems.
- Each site to have a co-ordinator.
- Compact course times as much as possible.
- Video tapes to be readily available to cover equipment breakdown and for students missing ANIK-B session.
- It would be a condition of further participation that taping for use be available to train in areas not serviced by ANIK-B.

- Provision for supportive staff to meet required services.
- Where possible, course costs to be reduced by increasing enrolment making it more comparable to correspondence course costs.
- Financial costs to be pre-set in advance (within reasonable range).

Yours truly,

A.F. Park
Senior Training and
Safety Officer

J.R. Fredrickson
Training Officer

AFP/JRF/ph

# Appendix 11

## Evaluation Of UBC Medical Open House
## Three-way Transmission
## University Of British Columbia

THE UNIVERSITY OF BRITISH COLUMBIA
2075 Westbrook Place
VANCOUVER, B.C., CANADA
V6T 1W5

FACULTY OF EDUCATION
Field Development

May 15, 1980

ANIK B, NEWS MEDIA FORUM
January/February 1980
4½ HOURS

The following summary observations are made on our experimental three-part program. Overall we were delighted that we hit an almost ideal interactive format with an equally suitable subject population, albeit a small population.

Good Points:

1. Interactive elements almost ideal though subject population small. In particular the sharing of experiences between city newspaper publishers and small town newspaper people in Whitehorse, Terrace, and Dawson Creek was excellent.

2. Match between content and subject population also almost ideal (though population small) and this gave rise to the high quality of interaction.

Bad Points:

1. Studio facilities inadequate for panel of four.
2. Advance planning not sufficient.
3. Initial choice of subject population wrong.
4. Limited participation because of 2 and 3 (above).
5. Lack of studio coordinator at each eart station.

We feel we can now greatly expand the level and quality of usage next time round.

Angus M. Gunn,
Professor

APPENDIX 12

EVALUATION REPORT
NORTHERN LIGHTS COLLEGE
FORT ST. JOHN

TO: M. Cleaveley

FROM: K. Erben-Begg

RE: Anik B Report

The Anik-B Satellite program was initiated to provide access to courses and upgrading that isn't available in local communities.

The programs were televised via the satellite with one way video and two way audio communication. The use of a land line provided students with the opportunity to ask questions during the course.

From the outset the project operated under very severe constraints. Very limited time and no direct support for operating costs. As a result local college staff were asked to add another responsiblity to their already heavy work load.

Problems obtaining course information and materials, tranmitting problems and poor communication between sender and receiver sites antagonized the situation. As a result staff support and student enthusiam for the project declined.

In January, 1980, a part-time programmer was hired to be responsible for the operation of the program and to provide a very important human communication link. The improvement fo the program co-ordination at the local level was substantial but by no means eliminated the problems.

The success of courses was in direct proportion with the pre-planning. It is imparative that courses be prepared well in advance so proper course promotion, registration and organization can take place on a local level. One month lead time is a minamum. Ideally there should be a course calander for Anik-B courses available for the general public before the start of a semister.

The expertise of the instructors for most courses was very high. Unfortunately this did not alway come across on camera. Many times the method of instruction left much to be desired, being reduced to sitting and talking at the camera. People are very famaliar and very critical

of television, watching 'talking heads' on a T.V. screen is not the most imagative use of the medium.

Instructors appear to have problems feeling comfortable with the system. The uniqueness of the system requires special training for the instructors with a variety of educational techniques used.

The students have been reluctant to use the land line system. The procedure of dialing and waiting provides a barrier to interaction. Programmers and instructors must make a very special effort to encourage participants to use the telephone. One instructor found success by referring to the students by name and asking them to call in by name from time to time.

Communication between the orginators and recievers was very inconsistant. The Friday afternoon meetings over the satellite between B.C.I.T. and the Colleges provided valuable information and was an extremely important link. Despite these meetings some 'outside orginators' tended to inform us of their seminars at the same time as they informed their audiences. On one occasion people from the community asked us about one Anik-B course we knew nothing about.

The Colleges should be involved in the plaaning of these courses, not merely notified of them.

The Anik-B system has been a success despite these problems. People in Fort St. John have recieved upgrading they would have not have been able to recieve without the cost of travelling to a larger center.

The value of the system has been proven by this excitting experiment. We have had problems and have learnt alot. We must make a effort to over come these problems and constantly improve the system.

The time for comphensive planning of this program is due. Planning is vital for Anik-B to survive as a credible education system.

Anik-B has grown and improved in our community. Our enrollments are steadily improving. We have found the work challenging.

The value of IITV cannot be overlooked. We hope to continue with the project.

APPENDIX 13

# EVALUATION REPORT
# MINISTRY OF LABOUR: BUILDING STANDARDS BRANCH

Province of
British Columbia

Ministry of
Labour

Building Standards Branch
Parliament Buildings
Victoria
British Columbia
V8V 1X4

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ANIK-B PROJECT

# Evaluation of the Administration of the Anik-B Project

Prepared by: Building Standards Branch
* Ministry of Labour
Room 220 - 880 Douglas Street
Victoria, B.C.
V8W 2B7

April 24, 1980

Introduction: This interim evaluation is prepared at the request of the Anik-B Evaluation/Coordination Committee which also agreed that each sending institution circulate their evaluation.

This evaluation deals with the Administration of the Anik-B IITV Project.

* Please note that effective May 1st, 1980 the Building Standards Branch will be transferred to the Ministry of Municipal Affairs.

General: At this time we still feel that we cannot offer a detailed evaluation of the administration of the overall project as we are still only peripherally involved. This peripheral involvement, however, raises the point that we, a user, still seem to be rather vague on the various demarcation lines within the system and as such have tended to possibly back away slightly. Who has responsibility for what? Should B.C.I.T. be taking care of a specific aspect of a project or should it be the exclusive responsibility of the individual user? Perhaps a more formal listing of specific contacts and duties, and the establishment of user responsibilities versus B.C.I.T. administrative responsibilities would be a benefit. This would also include the relationship that exists, or should exist, between the B.C.I.T., the regional colleges and the individual user.

There also seems, at times, to be the feeling that the right hand doesn't appear to know what the left hand is doing. This may simply be a teething problem that will rapidly disappear as the project continues, or it simply may be that we must become more involved in the project workings.

Goals: Our original goals have changed only slightly since we became involved in this project. We still see the IITV project as an invaluable tool for not only building inspection education but for numerous other facets of the construction industry throughout the province which are only coming to light as we progress in the programme. The slight change in our goals is that we are becoming progressively more aware of the importance that video tapes of lectures and courses can play in meeting our overall objectives. Until the time comes that any location within the province can receive the signal, we believe that video tapes will prove to be an excellent and invaluable substitute for those unable to attend live presentations.

The following comments relate to specific minor points that we would appreciate comments on:

Class Preparation — We anticipate an extensive use of lecturers who will be participating in our programme for only one, and in a few cases, two transmissions. It would be a definite asset if they can be offered some form of introductory information kit. This could contain a list of contacts, what the limitations of the television system are, what aids and services are available, the extent to which slides, photographs, sketches and so forth can be used and generally any other information that could be of benefit to the lecturer. Additionally, there was a suggestion made that a "technical coordinator" could assist the lecturer if requested. This preparatory kit and assistance would give the lecturer great support for his presentation.

Broadcast times — To eliminate any misunderstanding, each sending institution should have a schedule of not only their own specific air dates and times, but the air times of all other sending institutions. All sending institutions would also be automatically notified of any changes or additions to the schedule.

Legal release of material — Is is the responsibility of the B.C.I.T. or the sending institution to obtain the legal release to allow viewing of video taped material? As stated earlier we expect to use video tapes extensively. If legal release of material was obtained prior to transmissions this could prevent any hindrance in showing video tapes immediately after transmissions if need be. (This release could be included

in the introductory kit mentioned earlier).

Summary — As stated at the beginning, our involvement is not as intensive as we feel is necessary to offer a critical evaluation of the project administration. We do feel that the minor comments we have made must be tempered with mention that the enthusiasm and cooperation offered by various persons within the IITV project is both refreshing and welcomed.

Jack Robertson
Building Standards Branch

Original to: Brian Gillespie

c.c. Mr. Vince Battistelli
Mr. Glen Farrell
Mr. Wally Quarry
Mr. John Tayless
Mr. Gary Karlsen
Mr. Joe Selby
Mr. Al Westcott
Mr. Don Anderson
Mr. Steve Schaeffer
Mr. Larry Shorter
Ms. Arlene Zuckernick

# Appendix 14

## Evaluation Report
## East Kootenay Community College

Cranbrook, B.C., Box 8500, V1C 5L7 ..... Phone 489-2751
Elkford, B.C., Box 700, V0B 1H0 ..... Phone 865-7610
Fernie, B.C., Box 1770, V0B 1M0 ..... Phone 423-4691
Golden, B.C., Box 376, V0A 1H0 ..... Phone 344-5901
Invermere, B.C., Box 960, V0A 1K0 ..... Phone 342-3210
Jaffray, B.C., Box 89, V0B 1T0 ..... Phone 429-3312
Kimberley, B.C., Box 8, V1A 2Y5 ..... Phone 427-4391
Sparwood, B.C., Box 1626, V0B 2G0 ..... Phone 425-2417

*East Kootenay Community College*

Cranbrook, B.C.

1980 04 17

RECEIVED
APR 21 1980
DIRECTOR, HE... B.C.

Mr. Brian Gillespie,
Chairman,
Evaluation ANIK B Project,
BCIT,
3700 Willingdon Ave.,
Burnaby, B.C.
V5G 3H2

Re: Evaluation of ANIK B Program

Dear Brian:

The following is a subjective record of personal observations we have made during the year concerning the ANIK B Program.

1. Courses that should be offered.

Judy has suggested that we should run an advertisment in the local newspapers, asking citizens to contact us and inform us what course they would like to take over the ANIK B. I think this is an excellent suggestion and we will probably be doing it within the next week or two. Once this is done, we will update this report with that information as it will be a more objective suggestion of courses than the following. From our point of view, at this time, we think that the ANIK B should be used to provide the following courses.

1) Third and fourth year university courses leading to a general studies degree for students who are beyond the community college level but are unable to finish a degree because of the distance between us and university.

2) Third and fourth year education courses for teachers who have not yet obtained their degrees.

3) Post graduate courses for teachers and business administrators.

...2

4) Continuing Education courses in pharmacy, engineering, law, medicine, dentistry, nursing, accounting, appraisals, credit collections.

5) Certification courses for nurses, social workers, workers with the mentally handicapped, recreational workers, librarians.

6) Advanced technical courses. We have been advised by the East Kootenay branch of the Association of Professional Engineers, that they would like to see courses in concrete, pumps and soils. I am sure the geologists in the area would also be interested in advanced technical courses as would computer specialists, chemists and foresters.

2. Method of Administration from ANIK B Program at College Level

It has become apparent that this program is sufficiently extensive that it requires the attention of a full-time or part-time co-ordinator who would do nothing but work with ANIK B. For the first eight months of the program, we tried to make use with the spare time of a faculty member. Unfortunately, the ANIK B program had to take second fiddle with such things as classes, lesson preparations, travelling, administration coordinating and faculty meetings. The utilization of a full time person, especially for advertising the course and for meeting students on a first time basis, has already shown an increase in enrollment and better public relations in the community. It is our policy to set up ANIK B coordinators on a trained basis as our Adult Education "Assistants". These people are responsible for representing the college in various community areas and are also responsible for arranging Adult Education courses in these areas. I think this is a good model for organizing local ANIK B operations.

3. Design of the Classroom

a) In Burnaby - small monitors should replace a large television set so that the instructors can make visual contact with the students, so as to liven up his performance.

b) In Cranbrook - larger more conventional shaped classrooms should be used with seating space for about 10 people, in front of each of the 4 T.V. monitors. It is very preferable to have the classroom in the downtown college facility, rather than in the welding shop which most users find a very strange place to go for the ANIK B courses.

4. Teaching

a) There should be more personal contact with the Burnaby students.

b) There should be a better understanding of the level of the students in the outside areas.

....3

5. Coordination of the Courses

a) More advanced notice of proposed courses is required so that they may be advertised before they are presented.

b) Materials should be sent out with sufficient lead time so that they will be received before the courses start.

Sincerely

J.C. Selby
Coordinator, Business Administration
Judy Becker
Coordinator, ANIK B Program

JS:pe

cc: Larry Szalanski
Dale Fike
Kathryn Tenesse

# Appendix 15

## Interim Evaluation Report
## University Of Victoria

UNIVERSITY OF VICTORIA
P.O. BOX 1700,
VICTORIA, BRITISH COLUMBIA
CANADA V8W 2Y2
TELEPHONE (604) 477-6911 TELEX 049-7222

University Extension

May 1/80

TO: MEMBERS OF ANIK-B EVALUATION COMMITTEE

FROM: ARLENE ZUCKERNICK
ANIK-B PROJECT COORDINATOR
UNIVERSITY OF VICTORIA

As requested, attached please find my report entitled "Some Comments on the Role of the Satellite Manager" for discussion at the May 15th meeting.

I hope this document will prove to be a useful contribution.

Thank you.

# SOME COMMENTS
# ON
# THE ROLE
# OF
# THE SATELLITE MANAGER

By

Arlene Zuckernick
Division of University Extension.
University of Victoria
May, 1980

GENERAL REMARKS

In early 1979, the B.C. government awarded the overall project management of the ANIK-B distant learning experiment to the Faculty of Continuing Education at the British Columbia Institute of Technology. The satellite transmission facility was located at the Institute.

Subsequently, at the invitation of the Dean of Continuing Education at the British Columbia Institute of Technology, the Extension Division of the University of Victoria undertook to develop, produce and evaluate two 1½ unit Education credit courses during the 1979-80 academic year. The programming costs for developing and delivering the University of Victoria courses was borne through regular funding procedures. This system was found to work well.

The project operated from the outset under severe time and logistical constraints both at B.C.I.T. and at the University of Victoria.

The University of Victoria only became involved during the 1979 summer months and the first satellite transmission week was set for October 4, 1979, allowing for very limited preparation time.

The University was one of only two "outside" (British Columbia Institute of Technology) program originators during the fall session, and the only one to operate outside of the B.C.I.T. - Regional College liaison system. (see B.C.I.T. documentation on this aspect.)

Therefore, of necessity the working relationship between the Institute and the University at the management and operational levels developed principally on an ad-hoc day-to-day problem-solving basis rather than from a pre-planned and well-enuciated structure.

It should be noted here that during the Winter 1980 term, the number of "outside" originators grew to five.

The principal British Columbia Institute of Technology - University of Victoria contact was between the Dean, Continuing Education (Dean Brousson - B.C.I.T.) and Director, University Extension (Dr. Farrell) and subsequently the Director, Education Extension (Dr. Pearce) at the initial management level and then between the B.C.I.T. Project Coordinator (Mr. Robertson) and the University Project Coordinator (Ms. Zuckernick). In addition, the latter two were responsible for all liaison at the day-to-day operational level for their respective institutions. Prior to commencement of the Winter 1980 sessions, Mr. Rob Nason assumed many of the day-to-day liaison responsibilities on behalf of the British Columbia Institute of Technology.

Apart from personal contact during the scheduled Thursday Production Day, (when only limited administrative work could be undertaken because of a very demanding production timetable), contact was largely maintained by telephone and infrequent meetings initiated primarily on the part of the University of Victoria.

The necessity of weekly travel to the uplink in Vancouver created a number of complications which are outlined in detail in the Project Report.

In effect, the University of Victoria project team operated independently of the British Columbia Institute of Technology except in regard to:

- Use of the ANIK-B facility and technical staff during the T.V. Seminar component of the University of Victoria instructional system.

- Maintaining general coordination especially in respect to the field centres. In fact, the University designated its own field associates who liaised as required with the college personnel.

Another major difference in the University of Victoria project model was the presence of the Project Coordinator in the role of producer; whose responsibilities included the design and production of both pre-packaged and live segments of the satellite transmission.

The independent functioning of the program originators allows for a maximum degree of experimentation with potential satellite - based instructional designs and a relatively high degree of adaptability to the needs of their specific client group by the individual program originators.

The fact that the British Columbia Institute of Technology Project Management personnel have direct responsibilities in the programming area resulted in a high degree of appreciation of the needs of program producers, and the ability to anticipate and correct weaknesses in the technical facilities.

A number of potential difficulties of the system can also be indentified: Communication between program originators and the British Columbia Institute of Technology was on an ad-hoc basis and therefore, there was an absence of established lines of information flow between the "outside" program originator and the various institutions involved in the experiment. This presented two major sets of problems:

- The nature of the relationship of the University of Victoria and the Regional Colleges in their role as field centres was vaguely defined and resulted in some crossed lines.

- The changes at B.C.I.T. in respect to the technical staff, administrative procedures and technical facilities (and these were substantial during the experimental period) were not passed on to the

University of Victoria as an "outside" program originator on any systematic ongoing basis.

The scheduling of courses, other timetabling considerations and the physical structure of the ANIK-B classroom were arranged principally to meet B.C.I.T.'s instructional needs. This presented a number of difficulties for the University of Victoria as an "outside" program originator.

Often there was very limited setting up time prior to our on-air transmission. During the fall session, it was between 5 and 15 minutes. During the winter session, the course before us only started at Session 7 of 10. Then we had approximately 30 minutes.

RECOMMENDATIONS

1. British Columbia is now in the vangquard of using satellite technology in opening up educational opportunities to its dispersed communities. In order to maintain this lead and improve on both an instructional and technical level, it is recommended that the Satellite Manager undertake a well-defined, on-going program of liaison with similar projects in other jurisdictions, and that the Satellite Manager set minimum standards of quality of presentation (not content) and ensure that the evaluation functions are carried out.

2. The question of access to satellite network must also be addressed. It is recommended that the Satellite Manager develop general guidelines regarding delineation of program responsibilities to programming institutions. It should be recognized that the programming institution bear the responsibility for needs assessment after such division of programming responsibilities. (see appended statement by Dr. Glen Farrell, Director University Extension, on "Utilization of an Interactive Microwave/Satellite System by the University of Victoria").

3. It is recommended that the Satellite Manager establish a Program Originator's Coordination Committee which would have three major functions:

   a. To facilitate information sharing regarding the modes of presentation, their strengths and weaknesses. This committee might want to undertake the development and coordination of a training program for instructors who will be teaching via ANIK-B.

   b. To keep all parties up to date and vet changes in the technical aspects of the operation, current field arrangements, and other administrative issues of mutual concern. (e.g. distribution of materials)

   c. To coordinate timetabling.

4. A formal on-going system of liaison between "outside" program originators and Regional Colleges should be established. This is particularly crucial for those program originators who operate with their own field personnel. The number of such institutions will likely increase with the increase in satellite course offerings. All program originators should be included as necessary in regularly scheduled program originator - College liaison meetings. (The one meeting we had seemed to be very useful to all concerned.)

   a. Advertising and promotion of both credit and non-credit courses should be coordinated by this committee.

   b. This committee could fill the role as a sounding board for program originator's ideas for potential courses.

   c. The issue of standardization of facilities in the receiving centres could also be explored.

5. Only a general statement can be made on the enrolment question. The minimum enrolment is related to the variable overall cost of individual course development and delivery and the pedagogical constraints of the courses. Given our instructional model, the minimum per centre would be 3-4 students. The potential maximum number is certainly not reflected in our experimental course enrolments.

6. Credit transferability among programming institutions can be arranged on an individual course basis. The transferability of credit is an issue which should receive special attention.

7. The whole question of means of distribution of support materials should be looked into by the Satellite Manager and/or an appropriate committee.

8. The role and responsibilities of all personnel both at the Satellite Management and technical end and at each of the participating program originators and receiving institutions should be clearly understood by all.

9. The timetable should be drawn up so that each "outside" program originator be allowed one half hour of "setting up" time prior to their on-air transmission, in order to permit sufficient leeway to adjust the facilitites to meet the varying needs of each instructional design.

10. The immediate instructor/student interaction is clearly one of the strengths of the satellite teaching/learning system. In order to fully enhance this aspect, consideration might be given to the following changes in the audio system. Instead of the telephone receivers, each student could be wearing a lightweight headset with a speaker (a la TV Floor Manager's). This would result in less disruption in communication.

UTILIZATION OF AN INTERACTIVE MICROWAVE/SATELLITE SYSTEM

BY THE

UNIVERSITY OF VICTORIA

BY

DR. GLEN FARRELL,

DIRECTOR, UNIVERSITY EXTENSION

The essential feature of such a system is that it is interactive - that means that not only can all parties on the system see and hear what is being discussed or presented, but can also immediately respond to it visually and through discussion. Thus, one of the major problems associated with other forms of non-face-to-face instruction can be overcome.

The University of Victoria will be able to make extensive use of the system in its off-campus programs; to complement and enrich many of its on-campus programs; to expand course offerings at the David Thompson University Centre; and in the community education programs offered in the Greater Victoria area. A more detailed description of these uses follows:

A. OFF-CAMPUS PROGRAMS

The University of Victoria offers a wide range of courses and programs throughout the province. These include graduate programs in Education, undergraduate courses in Arts and Science, Education, Social Work, Child Care, Fine Arts and Public Administration; and short-term professional development courses for teachers, child care workers, nurses, social

workers, public administrators and other professional groups. Collectively, these courses are offered in over 60 B.C. communities and during the past year enrolled 700 students in graduate and undergraduate courses, and over 10,000 in the professional development programs. The following examples illustrate how an interactive microwave/ satellite system would facilitate the delivery of theses courses:

a. Graduate Courses:

Graduate instruction requires that there be regular interaction between student and professor. This is currently achieved through regular visits by campus-based faculty to the centres where graduate programs are offered. This limits the number of communities that can be served and is costly. The proposed system would not eliminate the need for direct student-instructor interaction, but it would permit at least 50% of it to be conducted directly from the campus - and, more importantly, would permit student groups in several communities to be served simultaneously.

b. Undergraduate Courses:

The University of Victoria has already successfully used the system to deliver two education courses simultaneously in five communities with an enrolment of 110 students. Instruction was provided through directed readings, mail-in assignments and weekly interaction with the professor through the Anik-B satellite experimental project. If each of these courses had been taught through conventional face-to-face instruction, only one community could have been served. The availability of a microwave link between Victoria and the lower mainland would have avoided the need for the instructor to travel to Burnaby each week to access the system.

The School of Social Work has an off-campus degree completion program underway in the Okanagan and West Kootenays. The courses are already designed for print-based distance education delivery, however, they do require on-site tutors plus periodic visits by campus-based faculty. Much of the tutorial instruction could be conducted via the interactive system. Through this delivery method, the program could just as easily be available to students in every centre served by the system.

Many more examples could be given, however, these illustrate the applications to be made.

c. Professional Development Courses:

The problem of keeping up to date is particularly acute for professional people working in smaller communities throughout B.C. To meet this need, the University offers approximately 350 short-term intensive courses to professional groups in more than 60 communities. Total enrolments this year are expected to exceed 11,000. These courses are provided by University faculty members travelling to the community - a delivery method that is both time consuming and limited to serving the needs of students in only one community at a time. Since many of these courses are as applicable in one community as in another, the use of an interactive teaching system would permit several student groups to be served simultaneously. The University of Victoria experimented with this approach during the Hermes satellite experiment, with excellent results. The economies of scale that could be obtained are obvious - as is the potential saving in terms of faculty travel time. This would permit more courses to be offered since the demand for courses of this kind is now moving beyond our capacity to respond through conventional delivery methods.

B. ENRICHMENT OF ON-CAMPUS PROGRAMS

The two-way interactive capability of the linkage between the University of Victoria, the other universities, provincial institutions, health care institutions and law courts would make possible a number of innovations. For example:

a. Sharing Teaching Resources:

Each university has faculty members with unique expertise. Experience with similar systems elsewhere (e.g. TAGER) has demonstrated that this expertise can be shared among several institutions so that many students benefit. A specific illustration could be nursing students at the University of Victoria receiving lectures from a member of the Medical Faculty at the University of British Columbia; Justice Institute students being taught a course from the Faculty of Law at the University of Victoria; or lectures shared between the Schools of Kinesiology and Physical Education at Simon Fraser University and the University of Victoria, respectively. The concept of resource sharing would also include scholars who visit one institution for a short period.

b. Observing the Application of Knowledge:

It is particularly important for students in professional schools to have the opportunity to observe, analyse and receive comment on the application of knowledge as it is being studied. The law student needs to see the application of legal principle in live court proceedings; the nurse needs to observe operating room procedure; and the social worker needs to understand the operation of the Family Court. Linkage between the University of Victoria and the law courts and major hospitals in Victoria

and the lower mainland would provide these and other students with a "real life" dimension to their education which is now difficult to achieve. The Court of Appeal, for example, only sits in Victoria for two weeks of each alternate month.

c. Meetings, Seminars and Conferences:

The faculty and administrative staff of the universities interact frequently. From the standpoint of the University of Victoria, it usually means travelling to the lower mainland. The system would not eliminate the need for conventional interaction, but it could potentially reduce the amount.

## C. DAVID THOMPSON UNIVERSITY CENTRE

The University of Victoria has undertaken to provide degree completion programs in Fine Arts (Theatre and Visual Arts) and Education at the Centre. Additional programs are currently being considered. While there will be a core group of faculty on site who will be teaching in a conventional way, there is a problem in terms of delivering those courses which require special expertise. The availability of an interactive system would permit Victoria-based faculty to provide these additional special courses. In this way, the students at the David Thompson University Centre would have a wider range of optional courses available to them. The system would also permit students at Nelson to have access to some of the on-campus seminars and guest lectures which occur regularly on the Victoria campus.

## D. GREATER VICTORIA PROGRAMS

The University of Victoria offers a broad program of credit and credit-free courses during the evening for students who cannot come to the campus during the regular day-time period. If an Instructional Television

Fixed Service was available, these programs could be offered to a much larger student group. To cite one specific example, a course in writing skills typically enrolls 40-50 students when offered through face-to-face instruction. Our one experience offering this course through the media enrolled over 250. Course evaluation showed no loss of instructional quality. Such a system would also permit the University to share with the community the many concerts, sports and other cultural activities that occur regularly on the campus.

## E. CONCLUSION

The foregoing illustrates the many different ways the University of Victoria would utilize an interactive microwave/satellite system. In summary, we believe it would make our off-campus programming more efficient and would permit more students to be served. Access to other post-secondary education institutions and the legal and health care centres would permit a sharing of instructional resources and, in the process, would significantly add to the quality of many on-campus programs.

The number of courses which could be originated from our University beginning September 1980 would require a system time draw of approximately 10 hours per week. We would expect this to expand as more receiving centres are added. This estimate does not include the access time for the University of Victoria as a receiving centre.

# Appendix 16

## Agencies

AGENCIES AND INDIVIDUALS RESPONSIBLE
FOR THE SETTING UP AND THE OPERATION OF
ANIK-B
INTERACTIVE INSTRUCTIONAL TELEVISION PROJECT

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Contracting Agencies

Canada Department of Communication
British Columbia Ministry of Education, Science and Technology

Operating Agency

British Columbia Institute of Technology
Department of Distance Education
Continuing Education and
Industry Services Division

Television Originating Centre

British Columbia Institute of Technology
Burnaby, B.C.

Receiving Sites

A. Satellite Audio Return

- Port Alberni
- Terrace
- Prince George
- Cranbrook
- Whitehorse
- Dawson Creek

B. Land-line Audio Return

- Gold River
- Prince Rupert
- Mackenzie
- Fort St. John
- Fort Nelson

Participants

A. Originating

- Ministry of Education, Science and Technology
- British Columbia Institute of Technology
- Ministry of Communications, Transport and Highways
- Ministry of Labour, Building Standards Branch
- Ministry of Provincial Secretary, Recreation Branch
- University of Victoria
- North Island College
- University of British Columbia
- Alberta Educational Communications Corporation

B. Receiving Institutions

- North Island College
- Northwest Community College
- College of New Caledonia
- Northern Lights College
- East Kootenay Community College
- Yukon Vocational and Technical Training Centre

In addition the signal is being received in Alberta at

- Medicine Hat
- Edmonton
- Grand Prairie
- Fort McMurray
- High Level
- Grouard
- Peace River

Personnel Responsible

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

- Dr. Walter Hardwick, Deputy Minister
- David Roach, Executive Administrator

FEDERAL DEPARTMENT OF COMMUNICATIONS

- John Thwaites, Social Economic Advisor, Pacific Region Office, Vancouver
- Terry Kerr, Anik-B Project Manager
- Doris Jelly, Assistant Anik-B Project Manager
- John Day, Manager, Communications Systems Engineer
- Ken Gustafson, Project Co-ordinator
- Ron O'Connor, Project Co-ordinator
- Bill McConnell, Station Manager

BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY

- David Brousson, Dean, Continuing Education and Industry Services
- Bill Robertson, Head, Distance Education Department
- Rob Nason, Technical and Facilities Co-ordinator
- David Billman, Technical Producer
- Deanna Giles, Technical Producer
- Derek Knox, Programme Developer
- Joan Cooper, Co-ordinator, Directed Study Centre

NORTH ISLAND COLLEGE

John W. Tayless, Director of Academic Programmes

Port Alberni
- Joan Frohn-Nielsen, Centre Administrator
- George Knox, Technical Co-ordinator, ANIK-B

Gold River
- Dr. David N. Hudson, Centre Director and Co-ordinator, ANIK-B

NORTHWEST COLLEGE

Terrace
- Gary Karlsen, Co-ordinator of Distance Education and ANIK-B
- Tom Knox, Assistant Co-ordinator (part-time) ANIK-B

Prince Rupert
- Laurie Jones, Programme Developer & Co-ordinator, ANIK-B

COLLEGE OF NEW CALEDONIA

Prince George
- Charles McCaffray, Principal
- Dave Snider, Liaison Officer
- Stewart Berry, Head Audio Visual Dept. and Technical Co-ordinator, ANIK-B

Mackenzie
- M. Nancy Jennings, Regional Director and Co-ordinator, ANIK-B

EAST KOOTENAY COMMUNITY COLLEGE

Cranbrook - Dr. Larry Szalanski, Dean, Academic Technical
April 1979 - March 1980 - Joe Selby, Co-ordinator Business Administration and Co-ordinator, ANIK-B
- Barry Brooks, Computer Manager and Technical Co-ordinator, ANIK-B

March 1980 - May 1980 - Dale Fike, Dean, Adult Education
- Kathryn Teneese, Adult Education Co-ordinator
- Judy Becker, Programme Co-ordinator, ANIK-B

NORTHERN LIGHTS COLLEGE

Dawson Creek - C.A. (Al) Westcott, Dean of Instruction and Programme Co-ordinator, ANIK-B

Fort St. John - Margaret J. Cleaveley, Principal and Co-ordinator, ANIK-B

Fort Nelson - A.V. Walker, Principal, Administrator and Co-ordinator, ANIK-B

YUKON VOCATIONAL AND TECHNICAL TRAINING CENTRE

Whitehorse - Steve Schaffer, Vice-Principal and Administrator
- Muriel J. McRae, Co-ordinator for ANIK-B

# Appendix 17

## Course Selection

COURSE SELECTION PROCESS AND ITS RESULTS

ANIK-B

INTERACTIVE INSTRUCTIONAL TELEVISION PROJECT

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## Course Selection

It was decided that the courses offered were not only to be of high quality but that they should be of special interest to people in the college regions. They were also to be courses normally available only to those students attending BCIT. The courses were designated either for credit or for professional upgrading.

In April, 1979, a programme committee, consisting of representatives from each of the Engineering, Business, Health and Continuing Education Divisions of BCIT, were asked to select a number of courses from their respective areas and to submit a list of the selected courses with brief course descriptions.

Instructors were told that regular courses were to be taught in a regular way over a full instructional year in order to test the system in a real setting.

The programme committee came back with a list of sixty-three courses. The list was sent to the colleges with an invitation to select the six courses they would like to see given priority.

The following list was drawn from the responses:

| Day Courses | Night Courses |
|---|---|
| Business Math | Refresher Modules for Graduate Nurses |
| Mining | Supervisory Skills |
| Forest Utilization | Construction Administration |

This list was sent back to the colleges for approval. Business Math and Supervisory Skills were dropped because of lack of interest by a majority of the colleges.

The Project Co-ordinator[1] from BCIT selected two additional courses, Hospitality and Tourism and Reading and Study Skills. These were subsequently approved.

The University of Victoria and the Department of Highways were approached to fill in the other openings in the transmission time.

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[1] Mr. W.D. Robertson, Head, Distance Education

The final list of courses offered in the first term was as follows:

Concrete Technology
Construction Administration
Forest Utilization
Geology and Soils
Careers in the Hospitality and Tourism Industry
Mining
Refresher Modules for Graduate Nurses
Reading and Study Skills
Technical Surveying 1 - Metric
Supervisory Skills for Educators ED-B 435

In the second term, some of the first term courses were dropped and others were included. The following shows a complete list of all events aired during the project.

1. Courses

Anatomy and Physiology Review
Careers in the Hospitality and Tourism Industry: 18.902
Concrete Technology
Construction Administration: 40.954
Estates for Legal Assistants and Legal Secretaries: 8033SA
Evaluation (Instructor's Diploma Program): ID104
Foreclosure Actions: 7962SA
Forest Utilization: 46.101
Geology and Soils 1
Mining: 50.102/202
National Building Code: 40.915
Psychology 111 - Child Development 1 - The Growing Years
Reading and Study Skills: 31.905
Recent Developments in B.C. Law
Refresher Modules for Graduate Nurses: 76.916

Supervision of Instruction: ED-B 435
Teaching Reading in the Primary Grades: ED-B 480
Technical Surveying 1 - Metric

2. Seminars

Alcoholism: Current Concepts and Treatment
Avalanche Information for the Winter Recreationist
Community Schools
Family Law - "After the Honeymoon"
Forestry Law: 7961 SA
Genetics in Medicine
History and Current Events
Management of Forest, Range, and Recreation Resources
Management of Recreation Facilities
News Media Forum
Playground Leadership and Pre-school Recreation
Professional Responsibility in Real Property Transactions: 8034 SA
Public Administration
Real Estate Series
Special Programmes for Builders
UBC Continuing Pharmacy Education

3. Specials

BCIT Broadcast Department
Opening of Satellite Network
UBC Health Sciences Open House

4. Teleconferences

Anatomy and Physiology
Association of B.C. Professional Foresters (A.B.C.P.F.)
Association of Canadian Community Colleges Conference
Association of Student Awards Personnel of B.C.

Audio Visual Communication Association
British Columbia Institute of Technology Counselling Department
British Columbia Association of Continuing Education Administrators
Broadcast Educators Association of Canada
Building Inspectors Annual General Meeting
Building Standards Branch
Council of Principals
Forest Fire Management
Genetics in Medicine
IITV Coordinator's Planning Conference
Industry Services
Librarians
North Island College
Open Learning Institute Exploration
Programme Planning
Project Evaluation Review
Recreation Seminars
Resource Tech
The Continuing Legal Education Society of B.C.
Weekly IITV Users Administration Teleconference
Test of Facsimile Equipment

5. Alberta ACCESS Programmes

Adventures in History
Athabasca University
Basic Horse Care
Basic Photography
Car Owners Maintenance Guide
Classics Dark and Dangerous
Coping with Stress
Episodes and Issues in Canadian History
Explorations in the Novel
Family and the Law
Finding My Own Way
Focus on Childhood

In the Shadow of the Giant
Library Course - Technical Processing
No Time to Lose
Olympic Profiles
Planet of Man
Renewable Society
The Age of Uncertainty
The Ascent of Man
World in Your Kitchen